

THOUGHT AND REALITY

Towards a Renewal of Critical Philosophy

By

AFRIKAN ALEXANDROVICH SPIR

AN ENGLISH TRANSLATION

By

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MEXICO

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Afrikan Alexandrovich Spir

(1837-1890)

A photograph of Robert Kaiser, Geneva, 1887

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With a Biography by Mrs. Hélène Claparède-Spir, a Foreword by
Prof. Auguste Penjon, an Appendix, a Bibliography and an Afterword
by the translator.

**In memory of Jean-Louis Claparède (d. 1940), grandson of Mr.
Afrikan A. Spir.**



Yelisavetgrad, Kherson Government, Ukraine

Life of Afrikan A. Spir

Hélène Claparède-Spir

[From her Prologue to *New Sketches*, 1899]

The steppes of southern Russia [today Ukraine] stretch away like a desert; you can travel for hours and hours without ever meeting a tree or a single dwelling.

In summer, this is an endless plain, monotonously gray. The dried up fields, burnt by the hot sun, give the landscape a particular character: a sweet melancholy inviting to daydream which the *Little-Russia* poets so well rendered in their songs; it does not fail to exercise its charm on the sentimental and meditative natures. Entering this deep quietness, the soul feels pervaded by an atmosphere of peace, as in a vast solemn and mysterious sanctuary. However, at intervals, we see on the horizon a green oasis: it is a large area with its villages, fields, woods, whose Lord is somehow the master of the region.

Ten *versts* [6.6 miles] from the small town of Yelisavetgrad, in the Government of Kherson, is one such oasis with beautiful shades, called [about a century ago] *Spirowska* from the name of Alexander Alexandrovich Spir, a highly esteemed, yet somewhat feared, doctor of the district. He was held as an original: but he was simply a very

strong individuality, a bold intelligence, an absolutist, who strictly conformed his life to his Principles. Considering pure air as the essential condition of health, Dr. Spir slept summer and winter under the stars; it is said that more than once, having found one of his patients locked in a almost hermetically sealed room, he had broken the windows open with his cane. But, under the harshness of his outside, he hid very generous sentiments and a great love of humanity.

He had early (in 1791) joined the State service, and filled various important offices: an extraordinary professor of Medicine at the Moscow Medical Academy - he had translated from the German the *Physics* by Mayer – he became inspector of the Health Committee of Kaluga and Astrakhan, director of the Nicolaïev Hospital at Odessa and Chief of medical services for the port of Kherson; he was awarded the order of St. Vladimir after the Russo-Turkish war.

In 1820, a terrible epidemic prevailed in Kamchatka; Dr. Spir formerly offered himself and crossed the immensity of Siberia at a time when these regions were still almost unexplored.

After spending several months in those distant lands, and believing his mission completed, he was preparing to travel back home; evil overtook him for having neglected to request the proper authorities' permit; he was sentenced to exile for acting of his own accord. On his return, however, new official duties awaited him; he was elected Court adviser and secretary of the government of Kherson; but a few years later, in 1830, tired of public positions, he preferred to retire completely into private life to devote himself, entirely, to personal scientific research closer to his heart.

During the course of his long experience, he had managed to clarify issues concerning the healing Art: it was the starting point of a doctrine he desired now to spread, considering it a duty to humanity to reveal the truths he had discovered. Paradoxical as they might have appeared then, such theories are now universally accepted. But, at that time, the treatment of patients was to cloister them in rooms without fresh air, to load their already weakened stomach with unnecessary drugs, and above all, to bleed them indiscriminately, often causing their untimely death.

In the face of such barbarism, Dr. Spir foresaw the need for reform based on sound Principles, and to this end wrote his book, so the disclosure would be simple and clear to everyone.

Thanks to his natural method, he obtained surprising healings that aroused the attention of high-ranking members of the court in St. Petersburg, and whose support enabled him to publish in 1836 *his* book titled *Certainty in Medicine*, a remarkable book which combined the rigor of the scientist and the logical projections of his ideas.

The misfortune of this book was the very result of what made it of value: too precocious ideas, Principles which clashed with received opinions, and especially the *cabale* of physicians, who, fearing the danger the success of such a book could mean for the practice of their Art and the damage to their reputation, obtained the prohibition of the dreaded book. In his despair, Alexander Alexandrovich appealed to the Emperor himself, of whom he had repeatedly experienced the benevolence; but, all in vain. The Sovereign could only express his regret to have to apply censorship. It was a terrible blow for the unfortunate doctor!

However, a last hope remained. He thought of France and the freedom and enlightened open-mindedness of the French, and was convinced that his book would get there a better reception; after he had with renewed zeal completed the translation of *Certainty in Medicine*, (1) he addressed it to the Ministry of Education and received in response a very courteous letter from

(1) We reproduce here the *Foreword*, as transcribed by the author; it does not lack interest:

"To the READER,

Sharing the painful condition in which you find yourself, facing as you do the fragility of human organization, and wishing to offer a salutary service, I allowed myself to propose some new thoughts, some rules (maxims) to retain and re-establish health, and reveal a truth of which I am convinced both by reason and experience.

I ask you to accept my work as a salutary advice, as a benevolent advice, as well as a scientific medical work because you will find in it nothing high and sublime. It shows the simple course of nature, and reveals the fundamental Law on which any treatment of diseases hangs, and the way to prevent them is to be based. No one can cure a disease that does not know the warning signs, except accidental diseases that can happen to the body while in its healthy state.

"I have demonstrated in a clear and unmistakable way that medicine, or so-called method of healing, is not a science and cannot be by its object; but that it is a Principle, a Law. Everyone can and must know how to preserve health, that is to

say, prevent illness and cure sickness, but must understand that disease is curable by natural means, without the aid of art that nature created not.

"I gave this subject simplicity, rigor, accuracy, clarity and mathematical perfection, having founded it, like Geometry, on basic indisputable truths (axioms), which carry no doubt, and for the public's sake, I tried to make it intelligible to all.

"My advice, in all cases where these things are of such importance for life and health, is not to listen to foreign insinuations, but to be guided by one's own reason. Anything that is not based on reason is unreasonable and therefore not only unnecessary, but undoubtedly harmful and pernicious medically.

"If imprudence seems sometimes to succeed, it remains nevertheless reckless. By listening to foreign insinuations you become the plaything of caprice and will and medicine of others. You are very often, or rather almost always, the subject and therefore the victim of processes, conjectures, opinions, probabilities, testings or chimeras.

"As my work is a chain or combination of truths that require reflection, I invite everyone in his individual interest to be convinced by reason, to put it in execution without fear, without apprehension and garner all the advantages that I myself gain daily.

"If you obtain this advantage my wish will be fulfilled and my goal achieved.

"Take care and I guarantee you health if you follow the simple and easy advice I give you so selflessly. I myself am a doctor, and have held this title for over forty years; but being a man before being a doctor I prefer humanity to medicine. Having discovered the truth by chance, by chance I would sin against conscience and humanity, if I withheld knowledge and cast it into oblivion.

"The very negative evil, according to the doctrine of Jesus Christ, is more damaging and reprehensible than the positive evil."

-Minister François Guizot, promising "to consider as it deserved, his important work"... Alas, these beautiful promises were not brought to reality and the doctor had to give up, forever, the hope to be heard. Lost the fruit of his painstaking labors and his long search! Lost the joy of spreading the light he had acquired! Lost finally, the dearest hope of all to serve humanity. Thus, the character of the old scientist faltered and visibly embittered, he became moody and irritable; this failure threw a shadow on his life that nothing could erase.

We briefly traced the life of the father of Afrikan Spir, a few words now about his mother.

Elena Constantinowna Pulevich was of Greek origin [descended from the Greek Painter, Logino who had come to Russia at the time of

Catherine II.] She allied beauty to an admirable character - angelic, say those who knew her - bringing together all the qualities that make a woman really worthy of veneration. Her gentle nature contrasted with the somewhat rough manners of her husband; but thanks to her intelligence, coupled with exquisite delicacy, she knew how to understand the originality of the one of whom she excused the quirks. A loving mother as well as an excellent wife, she wrapped her children in love and care.

Charitis, her daughter and her younger son, Afrikan, resembled her physically and morally; only the eldest son, Aristarchus, had inherited the father's traits.

Aristarchus Alexandrovich was a fine and judicious mind, a brilliant conversationalist and critical bite. Very early he turned poet and wrote fables. He died at the age of forty-four, leaving several works in verse and prose, including a historical drama that was represented in Moscow during the passage of the Tsar.

When, on 15 November 1837, the younger son of Alexander Spir was born, the doctor was over sixty years old and his wife close to forty-five. The little Afrikan - this is the name that befell him following a favorite whim of the old man for names of the ancient Greek calendar - was baptized according to Greek Orthodox Church rites, to which church his mother belonged, although his father was a Lutheran. When still little, he was already noticed for particular traits. Here is one that was told us: he showed for jewelry a sort of instinctive horror, and if a person wore earrings, he would start crying and did not rest until the lady would have removed them. This horror for jewelry and flashy heirlooms persisted throughout his life; he considered such ornaments a remnant from the mores of a primitive age.

At two years of age, he was spelling the alphabet, and at five he read the Gospel. It was a touching picture to see this young child sitting at the feet of his mother, interrupting occasionally his reading to watch the woman he loved and gently kiss her hands.

This early intelligence was already reflected on his face: his large pensive eyes and his black curls attracted attention; but woe to the one who dared to admire him, because any compliment would make him angry.

The childhood of Afrikan Alexandrovich was a very happy one; he said it was the most beautiful time of his life. The landscape - yet little

changed in these regions - had over his young imagination a profound, but indefinable charm. Dreamy and lonely, he liked to contemplate at length the spectacle around him, admiring every detail of the great outdoors and staying in ecstasy in front of the beauties that appeared to him, as if his little soul wanted to penetrate the secrets of the Infinite! These hours of contemplation left him such vivid memories that he later recalled: "We like to say that children have a poetic soul; I even strongly doubt the poets have a soul as poetic as children."

But, this beautiful time of dreams and delights was only too soon to end. The custom of noble families was to send the boys early to Boarding or High schools to further their education; it was only much later, after a rank in the army had been garnered that young people returned to their homes where their surroundings sadly lacked life and appeared devoid of ideals. At the age of eight, therefore, our future philosopher was ruthlessly torn from his happy and quiet life to enter a preparatory school at the Naval College.

In the crowd of rowdy children, the silent Afrikan must have felt homesick. His reserve, the severity of his face, made him soon noticed by his masters; the strength of reflection his answers and objections assumed had excited their admiration, and they experienced a real charm to penetrate this young intelligence, so avid for knowledge and already so interesting. At the same time, he inspired genuine respect in his comrades because alone of all, despite the rigor of discipline, he never deserved corporal punishment, not even a reprimand.

After several years of study, - during which he saw his parents only during vacations - he entered the School of Nikolaïev for Midshipmen. There, his *inclination* for meditation, far from diminishing, only increased; as he had no one to guide him, no one to share his thoughts with, reading became his only resource: he devoured the few scientific works that he could procure, and studied the classics with passion. Books always remained his dearest companions.

Around the age of fifteen, as Ernest Renan [1823-1892] and many others did, he went through an intense religious crisis, spending long hours kneeling in fervent prayer; he then became very anxious to enter a monastery to live in complete detachment from earthly things and follow a pure and holy life. He did not realize it, though, probably yielding to the entreaties of his family, but always remained deeply religious, in the purest sense of the word.

• CRITIQUE
DE
LA RAISON PURE •

PAR
EMM. KANT.

SECONDE ÉDITION EN FRANÇAIS,

Re traduite sur la première édition allemande; contenant tous les changements faits par l'auteur dans la seconde édition, des notes, et une biographie de KANT.

PAR J. TISSOT,

PROFESSEUR DE PHILOSOPHIE A LA FACULTÉ DES LETTRES DE DIJON.

TOME PREMIER.



PARIS,

LIBRAIRIE PHILOSOPHIQUE DE LADRANGE.

Quai des Augustins, 19.

1845

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Then, an unexpected circumstance changed the course of his ideas. One day, a book of Philosophy fell into his hands: it was the French translation, by Claude-Joseph Tissot, of the *Critique of Pure Reason*, by [Immanuel] Kant [1724-1804]. This work, which he pondered at length, awakening all his skills and his taste for Philosophy, was to put a final stamp on his mind; it was to him like a revelation. Afrikan Spir had now found his way; he voraciously read the works of other German thinkers, he read Voltaire and René Descartes; in the sequel, John Stuart Mill and David Hume were to be his favorite authors.

However, he could not concentrate on his studies, as too expensive, but for rare moments; the mariner's life absorbed him entirely: climbing up ropes, hoisting sails, then, were rude occupations. Much

later, our philosopher liked to tell of the sensation he had experienced when, for the first time, he did night watch at the top of the mainmast, buffeted by storm over the dark and roaring sea.

A Naval officer at eighteen years, he took part in the defense of Sevastopol in 1855. At the forefront at Malakoff, in battle, at bunker 4, when the bullets were whistling in his ears, as a cannonball fell next to him, he did not depart for a moment of calm and serenity. It was a miracle that he was not killed or wounded or taken prisoner; in recognition of his gallant conduct, he was awarded a medal with the ribbon of St. Andrew and another with the ribbon of St. George.

However, those awful memories of battle haunted him long; there, he knew all the atrocities of a war that inspired his illustrious compatriot, count Lev Nikolaievich Tolstoy - a young artillery officer, at the time – many highly-moving pages. Overwhelmed by a just horror of the bloody carnage, he decided to abandon the military career, however brilliant had been his inception, and resigned the service to go live in the company of his mother.

During this time, his father had died an octogenarian in 1852, leaving a considerable fortune in land and serfs. The first act of Afrikan Spir, taking possession of his estates, was all selflessness and humanity: he freed his serfs, built for them small homes, gave each a piece of land and some money. (1) But this was not all; their liberator was also to be their adviser and support: everyone could come to him for help and never be sent away. It was reported, for example, that one of his peasants fell in love with a girl belonging to a Landlord of the neighborhood; Afrikan immediately bought the girl free, and ensured the happiness of the young couple. In this spirit of charity in the true sense of the Gospel, he gave many other proofs. A poor man came one day to ask him for a garment; but our young man had already given away everything and he was left with an old coat at the bottom of a wardrobe, and the jacket he was wearing. Without a moment's hesitation, he undressed, gave the jacket to the beggar and put on the worn-out coat.

Both in the country and at his little house in Yelisavetgrad, – where he often lived during the winter - Afrikan Alexandrovich led the simplest and most retired life possible; absorbed by the things of the spirit, he did not like the world, and if by chance he happened to be in a social gathering, he stood aside, fleeing from conversations. Not by austerity or melancholy; he could intimate with his lively and frank gaiety, but

his higher nature could find no pleasure in the frivolous amusements common to idle young people of his age.

In 1862, he undertook a long journey abroad; accompanied by his devoted servant Othon, he visited Paris, London

(1). The liberation of the serfs in Russia was proclaimed in 1861.

-Berlin and Leipzig, with special interest in attending Universities and learning Philosophy. Back to the solitude of Russia, after an absence of two years, he began to study with renewed ardor; often found pen in hand, absorbed in some manuscript. Very enthusiastic about Shakespeare, he even had made a full translation of his works for his personal use.

Meanwhile, sad events occurred; a double grief struck him cruelly: Charitis his sister, wife of Prince Phillip Jewachov, died suddenly in the prime of life, in an accident. It was for his old mother the last blow; she, undermined by grief, did not long survive her daughter. Afrikan Spir lost in her the tenderest of mothers, the most loved and worthiest of beings; he not only suffered in his filial affection but he felt other more mysterious ties break up: a secret affinity of spirit and character with this noble woman; with her, disappeared his highest living object of veneration. Nothing now remained to keep him in the Russian homeland. He had decided to dedicate his life to Philosophy, to devote himself entirely to the disinterested search for truth. In order to be able to follow the mainstream ideas of the time and to make direct contact with the world of thinking, he resolved to settle abroad.

After selling their land at a cheap price and distributing much of his fortune to cousins, he finally left Russia and went to live in 1867 at Leipzig. There, he lived in absolute seclusion, surrounded by his books, alone with his thoughts.

In the course of that year, he wrote his first book, which he later regretted as a premature publication. He felt that his thought which was hampered in its expression by the constraint of a language still unfamiliar [German], was not exposed with the desired order and clarity.

Watching this young man with a modest air seated on the benches at the University, who regularly attended as an auditor courses in

Philosophy, nobody, certainly, suspected that this stranger, unknown to all, and who had never sought to befriend students or teachers, was an elite spirit. He simply returned to his solitary room, silently working to build a system, the result of his long and intense meditations.

Having revamped the form of his first book, he published it in 1869 under the title: *The quest for certainty in the knowledge of reality*. (1) It is always difficult for a book, even though it contains the highest truths, to make its way amid a flood of publications, if the one who has written it and launched it into the world is unknown, especially a stranger. Our author made the sad experience, moreover, of taking no account of public demand, and though a Scholar as he certainly was, he wished to submit no titles of legitimation or recommendation, failing academic diplomas. Moreover, by extreme modesty, he never wanted to highlight, and would even refuse to give, any biographical information if asked. "Nothing is further from my mind - he once wrote - to want to impose myself to the attention of others. Whoever has recognized the futility of personality does not attach any price to glory. The only thing that has value is to do Good." But Spir believed to achieve this Good by spreading his doctrine, which he never claimed to have originated:

(1). *Forschung nach der Erkenntniss Gewissheit in der Wirklichkeit*. From the Foreword: "If this book could have the happy fate of falling into the hands of a few men in whom the love of the truth is not reflected only in phrases - men whose thought is open to all basic knowledge, and who feel it unworthy of them to consider something as true, simply because it pleases them or that it is already the subject of their convictions - so in all confidence, I hope they do not misunderstand this work in their mind and wish they can draw from it some satisfaction ... "

"I am not the author of it, he said, I have not made it; rather, it was the doctrine that made me what I am, and taught me to think. I have been the soil where it sprouted, developed itself, grew slowly, very slowly, in the course of many years." So he thought the readers could be interested in his doctrine without regard to his person.

On the other hand, his ideas, for the reason that they were new, would necessarily be in conflict with the current rulings and biases, a conflict which continued also during the whole life of the author of *Thought and Reality*. The son was to know the suffering of the father. That one

had thought to bring to men the secret of body health stating Principles of life more suitable to their physical nature; this one brought them a most precious secret again, the salvation of the soul by revealing the fundamental Principle of their moral nature: neither of them would be heard...

"If a man dares to bring something new that is in contradiction with the creed we profess for years, everything is done to oppress him... and thus a new truth can sometimes wait a long time before it emerges." (1)

While his early works had not attracted the attention they deserved, they had nevertheless been noticed in the philosophical world. (2) German magazines had also given initial analyses. But, there were very few who dared to declare themselves highly partisan of these theories, though no one however could ignore their essential character and creative power. Besides, this was quite a natural reaction among the European *savants* of the time.

(1) Goethe, *Gespräche mit Eckermann*, III, 22, Leipzig.

(2). The first reports in French appeared in the *Journal of Theology and Philosophy*, Lausanne, 1878; *Philosophical Critique*, Paris, 1878, and the *Philosophical journal*, Paris, 1879.

"...The more a work is called to reflect and last, the more it will take time to be digested and understood, because it is, at the time of hatching, too far ahead of the dominant spirit and still belongs to a future time " (1)

It is regrettable that Afrikan Spir had never looked to engage with scholars in his youth: by winning attention, elevating the discussion, he would have done much for the ideas he sought to propagate. But he was both too full of dignity and reserve to seek protection or approval of those who might have seemed interested. No more than wealth, fame was of small value in his eyes, and he was very insensitive to honors.

One day, a letter from his Publisher announced a lady from Berlin was interested in his works, in his person, and said that apparently this stranger had to be the Crown Princess - now the Dowager Empress [1898] - who was very distinguished and educated, liked the company of men of thought and encouraged their work; but it does not appear

that our philosopher had attached any importance to the news of this recognition.

All that embraces human knowledge interested him in the same way: Science, History, Moral, Social Economy, nothing was foreign to him. In a pamphlet published in 1869 and entitled *Vorschlag an die Freunde einer Vernünftigen Lebensführung* [Translated in French by his daughter, Mrs. Hélène Claparède-Spir as: *Projet d'un coenobium laïque* Coenobium, éd. Lugano, 1907,] he suggests his view of life in a social perspective: following Lessing, who in one of his letters regrets that there existed no Protestant monasteries, where the solitary man could find, instead of isolation at home, almost a family and live a spiritual life while pursuing particular occupations, our author - believing that this was an idea "really worthy of study and practice" - worked out a Community plan for single

(1). Schopenhauer, *Parerga Paralipomena*, I, p. 372.

-men with a certain culture of mind, common sense and reason, and who, either by inclination or for other reasons, have renounced marriage. He himself was very willing to be part of such a congregation, but his appeal did not bring sufficient numbers of followers, and it could not be organized. Maybe, he would have made another attempt, had not unforeseen circumstances prevailed that would change the conditions of his existence.

Having made the acquaintance of a young lady who seemed worthy of sympathy, he married her in 1872 in Stuttgart, where he had settled. There, he continued his work and brought out in succession, starting from 1873, the four volumes that were later put in a series, and form the complete and accurate presentation of his philosophical doctrine, *Gesammelte Schriften*. (1) The first two volumes [Now translated as *Thought and Reality*] contain the metaphysical part, "the Law of thought" and the "world of experience." The third volume deals with the moral life, religion and Law; the fourth is devoted to articles on various topics and thoughts.

It may seem surprising that, despite his modesty and how little proud he was in person, Afrikan Spir would show so much confidence in the value of his doctrine. This is the man who believes he has arrived at a true knowledge, is aware of its superiority and stands by this fact over his own ephemeral individuality. So, it is with full conviction and full

sincerity that he blames himself for his own failure and the low impact of his work: "There never was, he wrote to a friend, such a disproportion between the man and his work, and what is saddest is that one must suffer from the inability and weakness of the other.

(1). *Gesammelte Schriften*: I and II, *Denken und Wirklichkeit*. - III *Moralität und Religion; Recht und Gerecht*. - IV, *Schriften vermischten Inhalts* (new publishers have changed the title to *Philosophische Essays*.)

-A man more capable and in possession of this doctrine, has already stirred the world." [The Scottish Philosopher David Hume (1711-1776)] And certainly he beheld the triumph of his doctrine not by pride, but, precisely because he saw in it the expression of the truth. He did not consider that the depository of this truth had to be publicized because "the true knowledge is something impersonal, deserving universal respect and the highest interest of mankind."

However capable the patient author of *Thought and Reality* was, his work nevertheless suffered from the objections that were made by critics to his theories, without a deep analysis and proper discussion; the superficial judgment of a doctrine he knew deserved serious consideration was particularly painful to him. To those who were interested in his writings and yet were put off by the obscurities or difficulties, he wanted to remind the words of Socrates judging Heraclitus: "There are many things about him that I do not understand, but the ones I understand are good; so I think the ones I do not understand are good also." (1)

His life flowed calmly, always regular, in harmony with his Principles. This unity of thought and conduct, so rare even among philosophers, was quite natural to him: what he taught, he lived, giving more strength, and more reality to his precepts. His days were invariably doomed to reading and meditation, interspersed by only one or two walks he made mainly alone. In 1878, though, Professor Andrew Dickson White, former *attaché* in St. Petersburg and later Ambassador in Berlin - then staying in Stuttgart - [Co-founder and first President in 1865 of Cornell University, Ithaca, NY] frequently accompanied him in his walks, and Spir was happy to meet with him and discuss the most diverse subjects and in particular Russia, the great country he would have loved to be more free and enlightened, and to which he ardently wished a better future.

(1). *Gesammelte Schriften*, vol. IV, p. 220.

At this time, occurred an event whose consequences would be fatal to him: he fell ill with pneumonia and later a relapse worsened by a chronic cough that then never left him; he bore it without complaining, though it made it impossible for him to conduct any business and kept him in complete isolation of the world. He moved to Switzerland for its extraordinary weather that was recommended to him and settled with his wife and baby daughter on the banks of Lake Geneva in Lausanne, where he spent five years. There, he began to work actively, sometimes even writing in the middle of the night when coughing kept him awake. But he always needed to get to work under the will of inspiration; he could write on a given subject, but only recorded the ideas as and when they arose in his mind. This freedom in the production explains how he was able to write several articles to the German philosophical journals, though he never accepted to be a regular contributor. It was during this stay in Lausanne that he published, in 1880, the complete and definitive edition of the *Gesammelte Schriften*.

Beside his intense spiritual life, Afrikan Spir also lived a happy and peaceful family life, but sometimes, though discord never clouded home, we often found him saddened and as lost in a thought that oppressed his heart; Perhaps, he meditated then the word of Amiel: "Being misunderstood is the cup of bitterness and the cross of life, it is the most cruel race for men..." at other times, deep sighs escaped from his breast as he suffered by thinking of the aches and pains which filled the world; the evil, and selfishness of men so reluctant to look for Good, so remote from this selfless life, which according to all the sages, is the real human life.

His leisure time was devoted to the education of his child in whom he sought above all to develop a love of Good and Truth. But, he was perhaps even better by his example. One day, his daughter asked him how it was he could never sin, he replied that even the best man apparently sinned continually, and that it was enough to raise one's voice to commit a sin. He was very hard on himself and his whole life was a continual effort toward a greater perfection. From his youth on, he had overcome unhealthy passions and fought against the instincts of the physical nature, through his awareness of human dignity and his love of reason. The nobility of his moral reflected in his person, on his

soft, pale face, on this beautiful forehead, when he gladly held his fine hand in the familiar attitude of meditation. There was at the same time delicacy and distinction in him enhanced by very simple ways.

His mansion outside the city overlooked the lake and the mountains, and this view was for him a great enjoyment; he compared it in thought with the wide unvaried steppes that had so impressed his childhood. An artist at heart, he had developed a very aesthetic sense, and above all loved music, never tired of hearing his wife play her favorite songs. The classical masterpieces produced on him an extraordinary impression and impregnated his soul and he seemed transported into a supra-terrestrial world whose music was a manner of sublime beauty.

Since reading was his most constant occupation, - we remember that his disease condemned him to isolation - Spir soon found himself limited by the library resources that Lausanne could offer. So he was forced in 1886 to leave his peaceful home and move to Geneva, where he spent the last years of his life. He was absent only once from this city, to go to Aosta (in the French Dauphiné) at the invitation of Mr. Auguste Penjon, with whom he came in contact after a review of *Denken und Wirklichkeit* published by the Professor of Lille, France, in the *Philosophical Review*.



Champel by Genva, today.

Based in Geneva, Spir could put a final touch to his *Sketches of Critical Philosophy* that appeared in 1887. (1) It was his given task to publish his doctrine in French, but as this first volume was too short to give a full view of all his thoughts, he sought to complete it with the

New Sketches, which were published after his death in the *Review of Metaphysics and Moral* under Mr. Penjon's care, and the kindness of Mr. Xavier Léon who today allows us to reproduce them. (2)

Consequently, he ceased altogether to write, thinking he had said all he had to say. Yet he still wrote a few articles, including one on the immortality of the soul, a question that was specifically the subject of his thoughts and he desired to write on it in a larger book, but he barely filled a quarter of it, only spare thoughts, which are the latest lines that his pen drew. (3)

Though his health had not gotten worse, it however left him no hope of ever returning to his country; seduced by the liberal and democratic institutions of Switzerland - where he thought to end his days, - Afrikan Spir conceived the idea of acquiring the *Bourgeoisie* of Geneva and took the necessary steps in this regard; but when the Official Act entitling him to citizenship finally reached him... the Philosopher had just expired.

(1). A Russian translation of these early *Sketches* was published and Count Lev Nikolaievich Tolstoy, eager to make known in Russia the Philosophy of his fellow citizen had proposed to attach a preface to introduce it to the public. Unfortunately, the manuscript was selected for Censorship, where it still remains [Written in 1898.]

(2). *Review of Metaphysics and Moral*, 1893-1897. [This biographical text of Mrs. Claparède-Spir was published as an Introduction to the *New Sketches* as *Nouvelles esquisses de Philosophie critique (études posthumes)*, Paris, Librairie Félix Alcan, 1899.]

(3). This article, which was written especially for the general public, has been added by the author himself to the *New Sketches*. It appeared also in translation in the *Philos. Monatshefte*, XXX, 5 and 6.

It was winter when influenza had suddenly spread, leaving everywhere traces of its sinister passage.

When Spir learned that the epidemic would reach the city, he had no illusion and quietly told his family his life would not be spared. His dark prediction was unfortunately realized. Indeed, following his wife and daughter – on whom he lavished his care - he was in turn overcome by fever, which marked the beginning of the long and painful illness he was never to recover from. The days and the weeks passed slowly, draining little by little all his strength, and his poor body wasted away,

undermined by fever, exhausted by coughing and sleeplessness. Soon, all body functions seemed suspended, except those of the brain; only thought remained inaccessible to the murderous attack; the moral energy still remained.

Calm and lucid, the patient looked at his life extinguishing; he saw the fragile shell of his being burn and wanted to analyze the phases of this material destruction which, by degree, continued its work. Several times he wanted to write, but his hand was too weak. For long hours he remained motionless, his eyes closed, and his handsome face frightfully pale, hollowed by suffering, kept the same expression of serenity.

The days followed the days and death slowly approached; when he felt its touch almost, he told his people in a resigned voice: "It is sweet to die when one has fulfilled his task on earth," and his eyes, of infinite sweetness, remained attached to the two loved ones he was leaving. But a tear glistened in his eyes, when in a last smile he said his last farewell... then in an instant paralysis invaded his tongue, while the terrible and tragic struggle yet raged between life and death. Still in possession of all his knowledge, the dying man tried in vain to make himself understood, he could only whisper; when suddenly, gathering all his strength in a supreme effort, he distinctly pronounced these words: "*Fiat Lux*". Now his mouth was silent, but his eyes were still eloquent...

Finally, on March 26, 1890, after two nights and a day of terrible agony, Afrikan Spir had ceased to suffer.

In trying to trace Afrikan Spir's life at the head of this posthumously published work, I thought to be useful to those interested in his writings. Biographical notes that have appeared so far - among others those of Messrs. Jodi (*Philos, Monatshefte*), Max Müller (*Nineteenth Century*), Auguste Penjon (*Review of Metaphysics and Morals*) and Pulevich (*Kievskij Vestnik*) - were necessarily incomplete, and I would think myself happy if this simple story could revive for a moment the beloved figure of my father.

Hélène Claparède-Spir

Champel, near Geneva, November 1898.

Foreword

By Prof. Auguste Penjon



[From the *Avant-propos* of his own translation of *Denken und Wirklichkeit*, 3rd edition, in French, 1896]

Journal articles (1) and especially *Sketches of Critical Philosophy* (2) he had written in the French language, began to make known in France the doctrine of Afrikan Spir. It has already aroused great interest. But, these items and the fragments published under the name of *Sketches* do not yet give a very complete idea. The time has come to publish the translation of the great work, *Denken und Wirklichkeit* [Which we are now introducing as *Thought and Reality* to the English-speaking world], where it is exposed in systematic form and rigorously demonstrated. (3)

Will Philosophy always be a fruitless search and a kind of idle chase where the pleasure of the pursuit eventually outweighs the need to reach the truth? Or, as believed until now, will all great thinkers never be able to justify their faith? Can it give us certainty? If it is only a game, an exercise of the mind, an

(1) V. *Philosophical Critique* (1st series), T. XIV, p. 228, and (2nd series), 4th year, I, p 185. *Philosophical Review*, March 1887 *Review of Metaphysics and Moral*, May 1893.

(2) The first series of *Sketches* was published in 1887, Paris, Alcan. The second was published in *Review of Metaphysics and Moral*.

(3) In addition to *Thought and Reality* (Denken und Wirklichkeit), the main works of Spir are: *Schriften zur Moral philosophie* and *Schriften vermischten Inhalts* (Verlag von Paul Neff, Stuttgart).

-art of reasoning with no better profit than to sharpen our reason for more serious matters, we must leave it to the child as a part of intellectual education. If, however, it must be a science itself, we agree that it is still not organized or incorporated. However, there is no doubt that many partial truths were successively discovered. What is there left to find?

A *Principle*, in fact, under which these truths are organized, to form a whole and finally take their true meaning and value.

René Descartes [1596-1650] had already recognized that the only truth of experience of which we are immediately assured, is *the fact of consciousness*. But, for lack of a rational truth, immediately certain too, necessary to anchor all the truths whose certainty can only be mediate, this great man had left Philosophy fall back into the rut of old systems. Metaphysics, on the one hand, with the chimera of its transcendent explanations, and on the other, Sensationalism with its skeptical consequences, had bloomed again. Immanuel Kant proclaimed the need for Laws of mind or *categories*, for the selfsame explanation of experience. But, the theory that he has given is obscure, complicated, and clearly arbitrary. His categories, without subordination, without logical relationships with one another, provide a mechanism whose workings are tailored to needs often imaginary and sometimes even fitted for symmetry only. Attempts to reform this great doctrine, whatever their merit in themselves, have failed to correct as well as it would have been required its original defects; nobody could offer a satisfactory deduction of his categories; No one has, as yet, reached to what is still admittedly the most difficult to encounter, which is everywhere a last resort, to what is, in a word, the simplest; but, here as everywhere, the efforts of all researchers are ceaselessly tending to it; and, precisely thanks to these joint efforts, one day or the other, chance or genius causes its discovery. Order is then restored, what was obscure clears, contradictions that necessarily collide sooner or later with unsound doctrines vanish,

"Placatumque nitet diffuso lumine coelum". [Lucretius, *Rerum Natura*]

The Philosophy of *Thought and Reality* is not one of those metaphysical constructions, in which imagination and prejudice always introduce some arbitrary data.

This is not, in any degree, an attempt to explain things, or the knowledge that we have of them. It is pure observation of what is, and at the same time, the decisive refutation of *Sensationalism*. The author takes as its starting point, on the one hand, the evidence of *the fact of consciousness*, which he analyzes as no one had done before, and on the other, *the Principle of identity*, which is the only really *a priori* Principle. His originality is, in fact, to be the first to have understood, or simply to have observed, that *this Principle of identity is the supreme Law of thought*, the foundation of all our logical assertions. His great discovery was seeing - and he showed it with great force in Book Two of Part One (Principles), - that *the objective value of the Principle of identity is proven by its own disagreement with empirical reality* where nothing occurs that is identical to itself, that has a nature of its own, that is a substance or an Absolute, *i.e. an unconditioned*; but, where everything, at the same time, is organized as if to take the appearance of substances, bodies or minds. While receding away from the Law of our thought or *Norm*, the world of experience, both outside of us and within us, appears to comply with this Law. In fact, however, it is composed only of *phenomena*: our sensations, on the one hand, our inner states, on the other, are exclusively the stuff they are made of, and yet, by a natural necessity, by virtue of the supreme Law of our thought, we believe in the existence of bodies outside of ourselves; we appear to ourselves as unique and identical substances. On reflection only, by observing everywhere composition, change, and dependence on conditions, we discover the *abnormal* character of things and our own *anomaly*. The Law of thought that created the *illusion* gives us the means to penetrate it and penetrating it to dissipate it, or rather to rise above it and judge it. We can, indeed, recognize the anomaly of things and ours, as well, only because we have the notion of the *Norm*; we can think of the relative or conditioned, as such, only because we conceive the unconditioned and the *Absolute*.

The concept of the Absolute is thus, in the order of thought, like the sun that illuminates the whole field of knowledge.

It expresses itself in *the Principle of identity* which, in the realm of Philosophy, takes its legitimate place. It only leads, it is true, to the

outright affirmation of the Absolute; it is the foundational basis of the Cartesian proof of the existence of God, the only evidence, if well understood, having any real value.

It, therefore, does not allow in any degree the explanation of the abnormal world, whose reality imposes itself as fact but is, because it is abnormal, inexplicable. God, as Aristotle well understood, is the perfection which is sufficient in itself and cannot be the cause of the imperfect. But, it is the term towards which we must tend: it is the ideal, now realized, we must strive to imitate, and as the lighthouse that sheds light on our way and enables us, by the ideas with which it floods the mind, to reach certainty. The affirmation of the existence of God and the religious feeling are the necessary conditions of all logical thinking and all moral action.

From *the Principle of identity* can be deduced, as mere determinations of the notion of the Absolute, or as consequences, all the other Principles *a priori*, but derived, that is to say all these Laws of the mind or *categories* [Kant's favorite term] between which it had seemed previously impossible to establish any logical relationship. Among them are the propositions that sciences themselves accept as *postulates*, though unable to justify them. And then, far better than one would do with any other doctrine, we see the differences and relations between Philosophy and the sciences. Philosophy goes to the heart of things; it begins where sciences, which cannot exceed the limits of *appearance*, are forced to stop; it is what gives them their Principles and ensures the validity of their inductions.

With a good understanding, we would avoid the confusion in which, even today, Philosophy is enmeshed; we would cease to enslave it, by reversing roles, to sciences and confine its task to vain generalizations that new and continuing advances in the endless study of the empirical world will always keep insufficient; finally, we would see in it what it really is: the more positive of sciences and the only one that can now attain to final Truth. [...]

Auguste Penjon,

Douai, May 1896.

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APPENDIX The Absolute and the Normal Nature of Things,
 abridged from Gabriel Huan's Thesis (1914)

AFTERWORD by the translator



Special note of the Translator:

1.-All my notes, editions and comments are between brackets [...].

2.-Page numbering in the table of contents, and in the text itself (**-2-**), follow the third German edition of 1884.

Introduction

Why Philosophy? What is the task of Philosophy?

The answer to these questions is, perhaps, the most suitable introduction to this book, although we cannot really say what the task of Philosophy is without giving the key findings of the research outlined in this work. Because, the task of Philosophy is closely related to its essence and with the fundamental theories that constitute this essence.

Long time ago, the question, what is the task of Philosophy, seemed not difficult at all to answer. Philosophy was simply meant to be *Metaphysics*, a science of *the unconditioned* or *the Absolute*, and it thus had a special object that distinguished its domain from the other sciences. But, since we now know, with the experience of thousands of years, that there is no trace in human history of a science of the unconditioned, or rather that there is regarding the subject matter only hypotheses that cancel each other, the mystery is not so easy to solve.

Regarding the claim of the ancient Philosophers that Philosophy constitutes a Metaphysics, a science of the unconditioned, we must do it justice in a few words, because it reveals a complete ignorance of the ways and means of

-2- knowledge (1). The unconditioned, in effect, is not an object of experience – otherwise our experience itself would already be Metaphysics, or Metaphysics would be a part of our experience. It cannot be known, if ever, but by reasoning. However, reasoning cannot produce anything from nothing, nor draw a science out of ignorance. It can only extend our knowledge of certain objects to others, which are not immediately known to us, but belong to the same kind as the first.

By reasoning, an unknown object becomes, therefore, known in so far as it belongs to the like kind of a known object.

But, the unconditioned does not belong to any kind of known, empirical objects, which are precisely all conditioned; so, it cannot itself be known by reasoning. And, supposing we have an *a priori* concept of the unconditioned - which is, as we will see later, indeed, the case - this concept has no real content, because knowledge can only

have a conditioned, empirical content; so, there is no way to establish with it a knowledge of the unconditioned, a Metaphysics.

But, if Philosophy cannot discover the unconditioned and does not, therefore, have an object different from the experimental sciences, how can it subsist beside these sciences and still be distinguishable? What then is the task of Philosophy? When we ask this question to the Philosophers of today, we get as many different answers as there are Philosophers. They do not, for the most part, have a clearer idea of the task of Philosophy than of its true essence. We will now say what idea we have to make of it.

(1) We return to this issue in Part One of this book.

-3- It is customary to oppose Philosophy to "positive" sciences among which we include experimental sciences. Hence, the reproach that Philosophy is not "positive", and this reproach was hitherto perfectly justified, as shown by the complete sterility, until now, of philosophical efforts. But, when *true* Philosophy, *real* Philosophy, is meant, then it is easy to argue that trait. There cannot be a Philosophy distinct from experimental sciences only because the experimental sciences are not "positive" enough.

We generally are dimly conscious of this, and what proves it is the widespread opinion that all empirical knowledge is "relative". But, what is exactly meant by this relativity is not clear. Saying that empirical knowledge is relative means that it is not unconditioned, that it is not unconditionally true, and, in other words, that in its essence, it is wrong, that it is based on a deception. We cannot know, it is said, what matter and mind are in themselves. It is very true; but, that precisely proves that the mind (our so-called Intellect) and the body that we know in our experience are not real substances, but only an appearance of substances.

For, if objects are given to us in experience *as such* and if they cannot, however, be known as they are in themselves, that is precisely the proof that they do not have a self, that is, they do not possess a true being, they are not real substances. If, instead, the bodies of our experience really existed, our experience would be Metaphysics, which is obviously not the case.

It is only in the course of this work that all this is established, proved and clarified. We just mention it here to characterize the task of Philosophy. Philosophy

-4- does not have any other object different from the experimental sciences; yet it differs, and is independent, from them. Because, our experience is based on *an organized deception*. Experience shows us objects not as they really are, but as they appear to us by a necessity of nature. So, our sense impressions appear necessarily, and with perfect concordance actually, like bodies in space that we think we see, touch, and in short perceive immediately, while in reality there is never anything given us that is present to us, but our own sensations.

The task of Philosophy is to seek the unconditionally true knowledge, to rise well above the natural deception, to know objects as they really and truly are. If Philosophy comes one day to be constituted, it will be the only really "positive" science, the only science whose doctrines are true without restriction, which is not the case of sciences, despite their success and triumph.

The method of true Philosophy is simply and solely this: 1.-To recognize facts themselves exactly as they are, at least the facts given immediately, and 2.-To draw from the facts only the simplest consequences, those present as such.

If we focus on this method, we will free ourselves forever from the possibility of error. But, here lies the question: why has this method which is obviously good not been tried for such a long time? What has mainly prevented it at all times is the *natural deception* which is the condition of our experience, and the invincible tendency it favors *to explain the facts*; this inclination renders impossible the very simple and unbiased intelligence of facts themselves.

To separate and distinguish facts from all possible or impossible explanations offered

-5- is, on the contrary, so much the essential of Philosophy, that everything that will be done, by failing to make this distinction, will lack any scientific value.

However, there has been at least one attempt to employ the method characterized above, and it was made by David Hume, the most sagacious of men (1). But, this method led him to the most complete skepticism, and it is precisely what prevented the use of this only real

method. We would rather be wrong than to achieve the same results as this Philosopher. It is clear, however, that one can use the same method that he did and achieve more satisfactory results. But, this requires knowing the fundamental Law of our thinking, and Hume did not know it.

If we can penetrate the natural deception and achieve a real and unconditioned knowledge, it is only in the light of the concept that we have *a priori* of the unconditioned (that is to say, the normal, unconditioned being of things), which is the fundamental Law of our thought. Thus, Philosophy is primarily a critical Philosophy: the discovery of the Law of thought is its first task and the most important one (2).

However, the work that led Hume to its perfect skepticism is partly blameless and whoever will follow

(1) David Hume (1711-1776), however, could not rid himself entirely of the tendency that causes us *to explain*, and this is what he did wrong. As long as he is content to find the facts, he obtains accurate results. If he tries, instead, to explain some facts, for example the nature of the idea itself, the idea of a necessary connection of the phenomena, the apodictic character of mathematical propositions, he falls into error.

(2) The two main tasks of Philosophy, to discover the Law of thought and to know given objects as they really are, can only be performed together. We cannot arrive at an exact notion of the Law of thought without knowing things as they are, and, conversely, this knowledge is really possible to its full extent only through this exact notion. This double aspect, necessary for any philosophical research, I have tried to indicate by the title of this book. In Part One, I mainly deal with *the Norm of thought* and in Part Two, with *given things as they really are*.

-6- this same method, the only good one, will come, at least in part, to the same results; to this conclusion, namely, that the natural belief into which we are all born and we all grow up, is logically contradictory and does not accord with the facts (1). But, things of this world are so arranged that for the ordinary consciousness locked up in the natural deception, the explanations that are offered, the most opposed to true Philosophy, *seem* to exhibit things as they are, and not as mere daydreams. It is, therefore, not surprising that Philosophy has made so little progress, though it is dealing with what is nearest to us and most immediately verifiable. Rather, we must wonder that men, despite so big an obstacle, may have formulated such accurate guesses.

For almost all truths, to take them in isolation, were found and expressed by ancient thinkers. But, it is one thing to have real isolated thoughts, and another thing to have *a right way of thinking*, to place oneself at the right viewpoint where the logical connection is made between all truths.

Isolated opinions or isolated true thoughts, have no force or effect; so we see that, despite all these individual gains in Philosophy, we have arrived at nothing, we have made no progress, overall; that, for thousands of years, the same problems have been tackled without success and the same quarrels constantly renewed. In our time

(1) However, we must exclude the belief in a necessary connection between phenomena and the value of the Principle of causality that Hume misunderstood and badly explained because he was unaware of their rational basis.

-7- still, pure *Naturalism* is again flourishing, that is to say the negation of all Philosophy, under the names of *Monism*, of *Positivism* and of *Materialism*, etc. And it seems that all great thinkers, from Heraclitus and Parmenides to Hume and Kant, have lived and worked for nothing. But, this deplorable state of affairs will soon cease. *The right way of thinking is found*, that is to say, the right viewpoint where the logical connection of all truths is made. I was indeed enabled to definitively solve all the problems I have approached so that, in the future, there will be nothing essential to change and Humanity is assured of the most precious intellectual good.

It is important for the understanding of this book to share briefly what is this viewpoint, from which one masters Philosophy. These two propositions are enough to express it:

1. We have in our thinking a *Norm* (expressing as *the Principle of identity*) with which, without exception, the nature of the objects of experience *disagrees*.
2. All objects in our inner and external experience are so organized as to *seem to agree* with this Norm.

These two propositions summarize the whole Philosophy. He or she who understands these two propositions has it all and clear without my help. He or she, however, who does not understand them, knows nothing of the true nature of things, and lives as in a half sleep, whatever his or her knowledge and insight may add up to. If a large

number of people arrive one day at a correct understanding of these two propositions, it will mean a new era for Humanity, the beginning of the era of maturity of mind.

The Norm of our thought is the *a priori* concept that we have of the unconditioned or *Substance*, the simplest

-8- and the highest of all concepts. The concept of the unconditioned or *Substance* is not, strictly speaking, anything other than the concept of an object that has a being of its own and is identical to itself. However simple and obvious this concept appears, an honest research shows that throughout the whole of our experience *not one* object really responds to it, and yet we know, as *seems* to us, as unconditioned objects, or substances (as bodies, for example). But, although none of the objects of experience agree with the Norm or the fundamental Law of our thinking, we can prove that by their very disagreement with this Law, they confirm and attest its validity. Three chapters of Part One are devoted to this evidence.

It is still necessary to add to what has already been said a few general comments on the finding in our thinking and knowledge of an *a priori element*. On this issue, as we know, much has been written without clear results; we can already see that things are very simple and very clear. This *a priori Norm* of our thinking, the concept of the unconditioned or Substance, that is to say the concept of an object that has a real being and is identical to itself, is clearly evident immediately, so that to deny it would be to deny our very thought itself. (1)

However, scrupulous research requires that we do not

(1) This concept is so much part of the essence of our thinking that we cannot conceive that there be any object that does not agree with it, that is to say that has not a real being and is not identical to itself. But all the objects of experience are precisely facts of this kind; they are simple combinations, changing and dependent on external conditions. All objects of experience - ourselves included - are inconceivable to our thinking. But this opposition between the fundamental Law of our thought and the nature of the given objects - and better yet, their *apparent* agreement - also has the unfortunate effect of making difficult a very accurate knowledge of the one and the other. All this will be developed throughout this book, and I will speak here only to show that one cannot judge things competently, but only when we have deeply studied them. Because of the

strange constitution of our world, that which is clear and simple is also difficult to discover and understand.

-9- satisfy ourselves with this subjective certainty, this "need to think." Because, it has rightly been said and demonstrated (Stuart Mill did it with a lot of depth) that habit, the association of ideas, can produce apparent necessities of thought, and that as a result, we took as necessary to think some *a priori* things that not only were not founded in the nature of our thought, but that proved false later. But, we have, for our *a priori* Law of thought, another *criterion* that excludes any possibility of doubt, in fact: that our whole experience is *at odds* with the Law of our thinking.

This is, indeed, the criterion of any *a priori*. Without this disagreement, we cannot prove that any alleged need for knowledge is not a generalization from our experience.

The hypothesis of an *a priori* element of knowledge only makes sense if this element adds something to experience, which we would not find there and from which it would be impossible to derive it.

It would be impossible to form our concept of an object identical to itself, unconditioned, with the materials of experience, because there is in it no such object.

But, there is in experience something that confirms in, a very positive way, the *a priori* nature of this concept, and that is the natural organization that makes the objects of experience *seem to respond* to this concept. This natural organization, deceiving though it is, which makes difficult the true understanding of the facts, is, when once well understood, the strongest proof that the concept of the unconditioned is not only our own *a priori* thought but still that it conditions

-10- all the regular course of things. To this, we add the evidence mentioned above, that the objects of experience, precisely because they do not accord with our *a priori* Law of thought, attest and confirm its validity.

And so, the Law of our thinking is attested on all sides and, of course, by the unanimous testimony of the facts.

I do not need to extend this Introduction. We must now step through this area of research with patient application, of which I have only given you a little insight.



PART ONE

THE LAW OF THOUGHT



BOOK ONE

PRELIMINARY

Chapter 1

Immediate certainty

From what has been said in the Introduction, I have to reckon as granted that *the purpose of Philosophy is certainty*.

We have long known that something cannot be certain but in two ways, either *immediately* or *mediately*.

Mediately certain is what is produced by something else; that is to say is borrowed from something else. One thing is mediately certain when I see that it is true by its relation to something whose truth was first established.

If nothing were certain immediately, nothing would be certain mediately and there would be absolutely no certainty. If I have to always support by new reasons the reasons for the truth of my opinion, if the pursuit of that which must guarantee the reasons given must always continue, the entire suite or the entire chain of Principles and consequences will never contain any certainty; they float, as they say, in a vacuum or in the air; they would have no foundation. In this case, in fact, each successive reasons would have value only if something different had been first proved and

-14- recognized as true; this condition being constantly renewed, it is clear that the possession of a longed for certainty would never be attained, would never become a reality. But, as soon as in this regression of reasons after reasons, we come to something whose truth is immediately striking and needs no collateral, the whole descending series receives both power and value. What was previously a dead train of thought, thereby becomes full of life and meaning to its last members; thoughts turn into knowledge whose truth is emerging clearly. Immediate certainty is thus the source of all certainty in general. The first task of Philosophy is therefore to seek immediate certainty.

But, this task is not so easy to fulfill, not because we do not have an immediate knowledge of it, but because we are often willing to take as

immediately sure what is merely concluded. One can also fall into the opposite mistake and ignore what is certain immediately. The difficulty is to distinguish what is immediately clear from the mass of things that go as such, and to separate it from all that is deduced. We know that Descartes was the first to set out with the energy necessary in this respect, that the thought or consciousness is itself immediately certain. The existence of thought itself, he says, cannot be denied or questioned; because this denial or doubt being themselves states of thought or consciousness, the mere fact of their presence proves, therefore, what they dispute and remove from it any meaning. It is hard to believe that this argument can be misunderstood, though it is and in many ways.

I would like to avoid any misunderstanding in this matter and hope to succeed by the following considerations.

-15- In all knowledge, or, more generally, in all ideas, we have to distinguish what the idea itself is, and what it represents, or, in other words, what is given in an idea and what is asserted (objects) in it. What is said may be wrong or questionable, but never what is given. Hence, we see how little sustainable is the objection of those who claimed that instead of the Cartesian formula "*I think, therefore I am*", one might just as well say "I sing, or I run, therefore I am". These people have not seen where exactly the nerve of the thing was; they did not notice the fact that doubt and falsity are based on the dual nature of ideas that represent objects that are not themselves and, as a result, that the immediate removal of doubt, or, in other words, immediate certainty can reside only in the ideas themselves (the *Cogito*), regardless of their relationship to objects. The formula of Descartes, *Cogito ergo sum*, is expressed accurately, as follows: All I find in my consciousness as mere consciousness is immediately certain. (1)

When I see an object, it may be questionable whether the object seen exists outside of my consciousness; but there is no doubt

(1) That Descartes had himself figured out and understood things well, is clear from a passage of the third *Meditation*, according to the French translation, revised by Descartes as follows: "Although the things I observe and I imagine are perhaps nothing at all out of me and in themselves, I am however assured that these ways of thinking which I call feelings and imaginations, just as they are ways of thinking, live and certainly are found in me." But Descartes himself

has given rise to misunderstandings. Because his formula: *I think, therefore I am*, took another aspect in the following lines: I think, therefore I am a thinking substance, which is obviously wrong and at odds with the facts. It is not easy to see, indeed, how he could have avoided this error. He would have had to rise to the *awareness* that the world actually contains no substance material or spiritual, but it was not the time yet.

-16- that I feel sensitive data which arouse in me the idea of an object seen outside of me. When I hear a sound, it may be doubtful that there is a cause outside of me; but, there is no doubt that there is in my consciousness a sound that seems, according to circumstances, to come from the right or left, front or back. It is the same for all the content of our consciousness. It is doubtful that anything outside meets anyhow in this content but, the given content of consciousness is itself absolutely beyond doubt. In the content of our consciousness, we find immediate certainty in the order of facts. (1)

It is the eternal glory of Descartes to have been the first to make the statement with this decisive assertion that a Philosophy worthy of the name must begin at the beginning, that is to say by the immediate certainty, and having discovered by intuition in a very safe manner that in the content of consciousness resides the immediate certainty of facts. But, Descartes did nothing more than to start well and, afterwards, what he and most others have tried to deduce is dispersed in all directions.

The first questions that come to us before going further are these: what is immediately clear is the content of our own consciousness; how can something external to our consciousness be certain? Also, what is immediately clear as fact is always something special, a certain sense impression, a sound, an individual sensation of taste or smell, etc; how can these particular facts raise us up to the general knowledge of perfect certainty? Philosophy has the task to answer these two questions; as this book focuses on

(1) We will soon see the reason for this restriction.

-17- their solution, I will now indicate the course adopted for their development. What follows will, I hope, clear everything. Since some immediate fact cannot, as we have seen, meet in ideas, we must first seek the nature of the ideas themselves.

This is obviously the first step that must be reasonable in order to recognize and provide the foundation for future research. This research, as established in the next chapter, gives the result that the special relationship to objects that are different from them constitutes the being of ideas, from which it follows that the nature of the ideas themselves ensures the existence of objects out of them and, moreover, there must be Laws (Principles) based on the nature of the idea (of thought) that determine the knowledge of objects. The research done in the third chapter on the question of how one thing can be certain mediately or, in other words, how a progress of knowledge is possible, gives the result that the individual nature of some immediate fact alone cannot lead with certainty to any general knowledge; in short, that in the *data* [given facts] of perception there is no reason to base the value of inductions that rely on it.

Thereby, we have an acquired point, namely that apart from some immediately certain *data* there must be Principles of knowledge immediately certain, bearing not on the individual but on the general. They are the source of rational certainty, as opposed to the certainty of fact accompanying the *data* and the facts of consciousness. But, here the thread breaks down and we need a new beginning. Because, there cannot be a method or rule to discover the immediate certainty. We must ask ourselves if we do not have a formula, that is

-18- immediately certain, obvious, in a word, intelligible by itself. For a very long time we have known there is such a one indeed and that is *the Principle of identity*. We must find in it the expression of the fundamental Law of our thought.

That we have not yet recognized the true sense of *the Principle of identity*, the fault is generally in the circumstance mentioned in the Introduction, that the objects of the experience seem to respond to *the Principle of identity*, while in reality none of them agrees with it. This deceiving organization of empirical objects almost inevitably affects our thinking and renders very difficult a proper intelligence of its own Laws, in most cases. We must pay even more attention to this fundamental question. The last two chapters of Book One and Book Two of Part One serve to prove that *the Principle of identity* expresses the fundamental Law, that it is the highest Principle of our thought, and that the objective value of this Principle is guaranteed by the testimony of the facts themselves.

The last two chapters of Book One are preliminary. They address the important question of the origin of our knowledge of the world of bodies, and, thanks to that knowledge, we can show very clearly that the data of perception alone cannot provide an experience like ours. Careful analysis of our knowledge of the world of bodies will already and clearly disclose the supreme Law of our thought which is at the bottom of this knowledge.

The entire Book Two titled *Principles*, is to prove that this fundamental Law of thought which conditions the knowledge of the bodies, and which finds expression in *the Principle of identity*, is a concept, originally innate to our thought, of the very existence of unconditioned things, with which no data of the experience accords because experience, specifically, offers nothing

-19- unconditioned, but which prove their objective value by this very disagreement. Hence, this concept is revealed as the common Principle of logic and ontology.

The second half of Part One and Part Two of this work are devoted entirely to bring out the logical consequences of this first Principle of the Law of thought.

The doctrine that I propose has, therefore, as its starting point and its foundation, the double immediate certainty that we offer, firstly, the facts of consciousness, and secondly, the supreme Law of thought. All reasoning in my book has as one of its premises the fundamental Law of thought or a fact of consciousness or a precisely drawn consequence of these fundamental premises.

How one of these basic premises, the supreme Law of thought, will be tested and verified as to its certainty and its value, I have already stated in the Introduction. Regarding the fundamental premises of the other kind, the facts of consciousness, I will take the greatest care to use only facts quite pure and without any admixture of inductions and explanations that under the influence of habit we adhere to. The arguments themselves will be conducted in accordance with this fundamental Principle of identical things that *agree* with one another, or of which we can say the same thing; this is impossible with non-identical things or things that do not agree.

In this way, will rise a system of thinking whose foundations are solid and absolutely assured and parts of which will be fully connected to

the foundations: the highest Principle of thought and the facts of consciousness.

A Philosophy thus formed can never conflict with the natural sciences. The occasion of a conflict between the natural sciences and Philosophy is born from

-20- the assumption of Philosophers that the unconditioned, of which they make their object, contains the sufficient reason of the experimental world, whose study is the object of the natural sciences, and is thus the ultimate explanation to find. We shall show in the course of this work that this assumption is false and that, consequently, the claim of Philosophers to rule the natural sciences is unfounded.

The unconditioned is not the sufficient reason of the experimental world, but it is the *concept* of the unconditioned, which alone is the object of true Philosophy, critical Philosophy indeed, and also the foundation of experimental knowledge. The result is a completely different relationship between natural sciences and Philosophy, which thus complement rather than fight each other. For, where the domain of one ends the domain of the other begins.

The natural sciences, for example, do not ask how it happens that we can draw from the contents of our own consciousness the knowledge of the world bodies outside of us. They cannot answer this question, because for them, the body of the world's knowledge is the last, the highest supposition; but, Philosophy must answer this question by returning to the immediate certainty itself. Sciences do not ask by what right they attribute a universal value, and the same in all times, to the Laws of nature they observe.

They can never solve this question, because mere experience does not teach that anything whatever is really impossible; but, Philosophy must provide the rational arguments that guarantee the value of scientific inductions. There can, therefore, exist no debate between them.

But, although true Philosophy can never be in conflict with sciences and the same Principle is at the bottom of one and the other, yet they do not fit together. Because, our experience is based precisely on

-21- a systematically organized deception, and the same Principle that makes possible a strong logical thinking is also the very condition of this natural deception. The Principle of truth is also the Principle of

appearance. Hence, Philosophy and sciences, although they have the same purpose and are based on the same Principle, differ, however. Sciences, in fact, move in the field of natural deception; they do not recognize objects as they really are, but as they appear to us under a natural necessity, while the task of Philosophy is precisely to seek unconditioned truth, recognize objects as they are in reality, and to highlight the true meaning of the Law of thought.



Chapter 2

The nature of the idea and the knowing subject

§1. What is an idea?

We must first ask ourselves what it means to distinguish between the true and the false and look into the consequences that result.

The distinction between true and false has this characteristic that it refers not to the nature of an object, but to its relation to something else. The truth is, as we know, where an object that we can generally designate by *A*, appears or happens exactly as it really is, - or as it actually is - that is to say in its own nature, *i.e.* precisely as *A*. If, however, something is said of object *A* that is not actually

-22- in it, that is foreign to it; if object *A* is not designed as *A*, but as something else, such as *B*, for instance, we say that this statement or this conception is false. The assertion, for example, that a man has wings would be false, because man has nothing of the sort, because wings indeed belong to the nature of the bird, but are not found in man and so we would assign to him something that is foreign to his real being.

It will be well to note the relation between the notion of right and wrong and what is proper or foreign in the true nature of an object; as it has often been mistaken, it has resulted in numerous misunderstandings. An object cannot contain falsity in its own nature, for the falsity consists exclusively of this that one affirms of the object something specifically not belonging to its nature. If, for example, object *A* was also in itself and according to its own nature *B*, this would not be a falsity, because object *A* is indeed *B* simultaneously. The true nature and the proper nature of an object, therefore, mean exactly the same thing; they are two expressions of a single concept. But, there is actually a fallacy if object *A* is not *B* in itself, but does seem *B* to someone. Whenever one talks about what an object is in itself and in truth, he must mean in its own true nature.

The possibility of falsity now entails the presence of a particular picture called *idea*. We must look very carefully into the nature of this image and carefully determine it, before we may hope to find in Philosophy a solid foundation. But, until now, only rather obscure and

contradictory theories prevail on this issue, and nobody, to my knowledge, has had the courage to study and scrutinize the nature of the *idea* with the attention, the accuracy and impartiality

-23- required. I shall try and review at the same time some of the proposed doctrines about it.

Let us consider a concrete case. A real content is given me, for example the color blue. I have two contradictory experiences of this content. Whenever, in fact, I see the color blue, it seems to me to extend outside, as a quality of external objects that, for this reason, is called blue; other experiences teach me rather than the actual content or the blue quality is in me. Which of these two experiences is true, I will not search now, because this is indifferent for our present purpose. I consider right for this case, the opinion adopted by all those who think that the content or the color blue is in us, is our own sensation. But, we wonder now: What conditions or assumptions are implied in the fact that the color blue that is *in us* appears as existing *outside of us*, as the quality of external objects? How can the given content appear as something it is not?

The simplest would certainly be to affirm that the phenomenon thus produced does not need so many assumptions, that the content or the blue quality, without the intervention of other factors, appears as a quality of external objects. Only this opinion is inadmissible. Because, if there were identity between the content itself (that is to say, actually, in its own nature) and what it seems, it would not be a simple phenomenon. If, in our sensation of the color blue we found right away, regardless of anything else, that it is a quality of external things, it would not then appear to us as such; it would be at the same time, really and truthfully, within us *and* outside us. If, however, it is not outside of us, but only seems to be so, there must be something why it seems that way.

-24- After this manner of understanding the phenomenon, which is probably the simplest but is unsustainable, as we have seen, consider another one nearly as simple. The phenomenon and what it is cannot be one and the same being, but we do not see, at least until now, any reason to say that they are foreign to one another and totally different. We, therefore, assume that the content, or the blue itself, doubly exists and shows in a dual representation. It is, on the one hand, what appears as a quality of external things. Let us designate by *A*, this representation or this way of being of the given content. On the other

hand, we have what *A* appears to be as the quality of external objects. This last representation or way of being, we designate by *a*.

We must now consider where the two representations of the content given, *i. e.* the falsity, - the appearance of this content as it is not – occurs; if it is in *A*, or *a*; if it is in what shows or what just seems. According to the above, the answer is not in doubt.

What appears as *A* has no part in the falsity of the phenomenon; it cannot be otherwise than it is. Instead, the falsity of the phenomenon is that precisely what is relative to *A* does not respond to its own nature. The nature of *A* is, in fact, what provides the *Norm* for distinguishing truth and falsity of the phenomenon. All falsity is thus the responsibility of another representation (*a*) of the content. It is in what in *a* does not answer to *A* that the falsity resides.

But, a simple disagreement between two objects does not contain in itself the slightest falsity. A horse and a house certainly differ from each other, which does not bar the horse from being actually a horse and the house really a house.

-25- Why is the disagreement of these two representations supposedly of the same content, *A* and *a*, the sign of falsity?

And, under what conditions can the disagreement turn into falsity? - Obviously in the case only in which the *a* way of being of a given content is not taken as existing independently and separately, but as the representative of *A* expressly; where whatever is given or present in *a* must assert itself not for itself, but for its opposite, *A*. This is simply because all that is present in *a* is relative to *A*, or attributed to it, that its disagreement with the latter is a falsity. Without this particular *relation*, *a* could differ from *A* completely, without there being any falsity there; there would only be a simple difference between them.

This existence of a given content, which is expressly related to a corresponding content, external to it, and we have so far designated it by *a*, is precisely *the idea*. What, on the contrary, it relates to (and we designated *A*) is *the real and objective being* of the content represented. The property of the idea is that all that is present in it exists not only in itself but as the representation of something different from itself, we call it *its object*. To conceive the nature of the idea as such, we must first look and understand how it relates to objects. For, it is precisely in this kind of *relation* that we find the salient feature,

the character that makes of the idea what it is and distinguishes it from anything else. This is why I spent all this chapter in considering it.

That there is something such as ideas, is not doubtful; for doubt itself presupposes the possibility of deceit, and falsity presupposes the existence of ideas, as that in which only it can happen. But, a true idea does not differ, as to its *essence*, of a false idea.

-26- As ideas, they are one and the other of the same kind, characterized one and the other by the same *relation* to something else (to the object). To make it more understandable, I shall give and examine two cases of factual knowledge, in which nobody doubts that the ideas are something different from their objects, namely: 1.- Memory: the knowledge of what is past, absent; 2.- The knowledge we have of others.

I emphasize that I do not have to take care here of how this knowledge will form. It is enough for our purpose, that no one disputes its truth in general.

Knowledge of the past is itself something *present*, and yet the past is known through it directly as *past*. It thus represents nothing really present to me, but something that was *once present* and that is *not present now*. I remember, for example, a house that I saw yesterday in a certain street. In this memory, I must naturally have in me a *present* content, for example, any reproduction of the impression made by the house yesterday. But, if I did not particularly notice this, I do not *think* of any of this content in me, but immediately of the house I saw yesterday.

Let us now think about how this given content exists in me: The real fact of its existence, namely its *presence* in me, as it fades and hides. It does not appear as itself, but as something different. The *idea* of the house I saw yesterday; this house is my present. If, compared to my memory, I make some reflections or some calculations, they are relative, usually, not to the content that is in me now and that is the memory of the support, but the pointed object.

Things happen the same way for another idea whose agreement with its object is not doubted in most

-27- cases; I mean the knowledge of states and qualities of other people. The inner states of another person are so foreign to me that I can never immediately connect with them, and yet I know not only of

the existence of the other person, but also also of his/her inner way of being. How this knowledge was formed is no problem here; I just know that it is an *idea* that is exactly, in general, similar to an external object different from itself, and which, without going out of myself, I am certain of. All I know of another person is naturally in me, is one of my actions, my statements, but what results of it, the contents of this state, or this interior act, is not given for what it is, but for states or determinations of another man. If, for example, I hear a child cry, I know he/she feels grief. I have no need to feel it myself; on the contrary, I may feel very refreshed at the same time, but the child's grief is present in me in a special way while I know it. This special way of being of a content or object (in the pure idea), we call its *ideal being*. What now is the hallmark of this ideal existence?

To be more specific, consider the perception of any object, a piece of paper, for example. (1)

(1) I must point out here expressly that in this example of a sheet of paper, a material object has been chosen for clarity. I do not refer here at all to the question of the existence of bodies, because the doctrine that I need to highlight here that the idea, as regards its existence, refers to an object different from it, is quite independent of this question. In our current research, it matters little that bodies exist or not. But, as in the consciousness of most people a real object and a body seem to have the same meaning, we must carefully point out that there are also outside the body other real objects, which differ from their knowledge or their idea, as the two examples given above indicate.

-28- Clearly, in my idea of the paper, the white color is contained, but the idea itself is not white. The scope and the figure of the sheet are also represented in my idea; but, the idea itself is not extended and has no figure in space. The hardness and weight of the sheet are expressly included there, because I talk about hardness and heaviness; but, the idea itself is in itself neither hard nor heavy. In a word, all the objects that are known to me are present in my consciousness, or I might not know anything; but, my consciousness is not itself all these objects. We see that the being of the idea is in general in that, in itself, it is not what it represents, that is to say all that is in it is not valid for itself, but for something else, for its object. Which in itself forms a real world ideally located in the consciousness of each particular subject, but precisely known as a real, outside, world. The special character of this ideal existence of objects (in the idea) resides in that it expressly

affirms the real, objective existence of these objects outside of the idea.

It is only because of this nature of ideas that error, as we have seen, is possible: what is affirmed of objects in the idea is not really consistent with the nature of these objects.

But, this fundamental character of ideas, we tend to ignore, and this with a rare perseverance. Empiricism expressly denies that the idea entertains any relation with the objects having its Principle in its essence. We will review the matter with the utmost care by advancing step by step.

§2. Difference between idea and image. The essence of idea characterized by belief.

It is very common to call the idea an image. And in fact, when the idea is true, it is a true picture of the object.

-29- But, we must, however, point out the profound difference between this image and the others. The objects in this world have several properties and several sides. An ordinary image is only a side or a small number of sides of the object to which it corresponds. And a painting of a landscape reminds us only of external and sketchy impressions that these objects in fact made on us at a distance. Each particular object, seen accurately, would also provide a large amount of impressions in the distance and in the picture are lost, not to mention the internal structure of objects, which can only be noticed with the aid of a microscope, and finally what our senses other than sight would let us perceive. All this, of course, cannot enter the represented landscape. Or, if we take a statue depicting a man, it reproduces only its external form, and contains none of the countless other properties or sides of its being. Now, the idea is the special image in which can be displayed all properties, all sides of the corresponding object. It is not difficult to discover at least the negative condition that this ability of general representation does imply. Only something without a proper content may reflect or represent any given content. The specific content of an object, however flexible it is, necessarily has a specific nature: that determination precisely limits its ability to receive a form and nullifies its universality.

To this difference is attached another essential one.

What is commonly called an image has in itself no connection, in its own being, with the object represented. The painted landscape is the image of a real landscape only to the spectator, and the statue represents the image of a man to us only. In themselves, colors, canvas, marble,

-30- arranged in any manner you like, do not have anything to do with any object represented. There is nothing in these images that certifies or relates in any way to the existence of the object represented. We could also consider two animals of the same species as images of each other, like children we call pictures of their parents, because they reproduce in fact many of the qualities of their parents. Nevertheless, an animal is not in itself an image. It is, indeed, a reproduction, but not a representation of its ancestor kind, because it does not have a representative relation with the essence of its ancestors. An image, even in a mirror, is only an image to a viewer, and is in itself most likely nothing more than a movement of light particles. Now, as opposed to all these examples, the idea is both image and viewer. All that is in the idea, as we have already indicated, linked with the affirmation that none of this applies to the idea *per se*, but to an object existing outside of it, the existence of which is thus affirmed.

This affirmation of something else (the object) inherent to the idea, we can generally call *belief*.

This word, it is true, easily leads to mistakes, and I have consequently made the following remarks. Belief generally goes for the opposite of Science, and particularly of what is proved; but, in this view, there are two radically different meanings that must not be confused. What is not proved can agree with what needs no proof, that is to say, what is immediately certain, as also what is not likely to have sufficient evidence, in other words something not certain at all. We are not referring here to this last meaning; on the contrary, the belief, in the first meaning is the foundation of all Science. The point on which I would like to particularly call

-31- the reader's attention is the fact that in the immediate certainty, even in the immediate perception, no coincidence between the idea and its object occurs. The result is very clear that certainty is of the same essence in all cases, whether resulting from the immediate perception or some reasoning. As in the last case, the idea is obviously different and separate from its object - it even consists of the absence of the latter - in the first case, it is distinct and separate from it. All

belief and certainty have their foundation and their roots in the nature of the idea, which nature is to contain the affirmation of that which it represents, *i. e.* faith in its existence. If knower and known were one immediately, intimately, this statement would obviously be useless. But, how could one single consciousness contain a whole world, present, past and future? And how could falsity be possible? But, we know that we may always and everywhere be wrong.

It follows, therefore, according to the above considerations, that relative to all that exists for us, the idea is something distinct and separate from its object. Never can an object come in the idea itself; it always remains next to it.

"An object is known immediately" can mean nothing other than this: "Between an object and the idea perceiving it, there is no intermediary" or "to the production of a content in an object answers, immediately and in parallel, the production of a corresponding content in the idea."

In itself, the idea can know nothing except by doubling itself; the knowing idea is then different from the known idea and its content relates to what the other affirms in relation to it. This affirmation only is too often false, is not really consistent with the known idea, as evidenced in a striking manner by the numerous

-32- inaccurate theories that have been proposed on the nature of the idea.

But, the belief, the affirmation of the object, inherent to the idea is not something that exists alongside the idea or comes to it from without; it is precisely, on the contrary, the original presence of this statement in it that makes the idea.

Otherwise, it would be the simple reproduction, or image, but not the idea of the object. So, there is no other Principle or foundation of certainty than the power of the affirmation inherent to the ideas themselves. The belief and its certainty can never come to our ideas from the outside, from objects.

But, if the belief is possible only in ideas, we can, however, get an idea without believing in the least that an object corresponding to it exists in reality. I think very easily of chimera or ghosts but, I attribute to them no real existence. Here, the affirmation of the object, inherent in

the idea that we have is negated and undermined by contrary stronger claims, and can even be completely annihilated by them. When I think of a chimera, I do not think a simple idea, a thought, but a real object. Reflection tells me, it is true, there is no similar objects, the thought of a chimera is a thought without any corresponding reality; but, this reflection is not the idea of the chimera itself, but something related to it.

When perception is concerned, the difference is even more remarkable. I can, for example, be very convinced by the thought that the color does not exist outside of me; however, when I see color, I see it as foreign to me as a quality of external things. Here, the negation is obviously produced outside the direct perception of color; this perception continues, without weakening, its affirmation of the object. How it can happen, in general,

-33- that the idea creates the appearance of objects that do not exist at all and how one becomes aware of the fallacy of such ideas, I have to consider now.

§3. Difference between the idea and sensation.

In our time, the doctrine that all knowledge is related to sensation has taken a boost, and the question so often discussed of the difference between sensation and idea must be examined again.

In psychological terms, a sensation differs from an idea, first, in that it is more vivid. When I see an object, the visual image is much stronger than when I remember an object seen; if I hear a melody, its vividness is also much stronger than when I just remember a melody heard before. In addition, the sensations are distinguished from ideas in that the first vary with the change of external objects or with my own movements. If a red object is placed before my eyes, I cannot have the sensation of yellow or green; if a blue object now replaces the red, the sensation of blue immediately substitutes the red.

When objects in my field of vision change as a result of my own movements, my sensations also depend on my movements. If I turn, for example, my head to the right, I feel some visual sensations; if I turn it to the left, they change and make room for others. On the contrary, the succession of my ideas, my thoughts, remain independent of the change of external objects and of my own movements. I walk or I stop in a room or in the countryside, I think the same things, let the same train of thought develop in my

consciousness. This agrees with the physiological difference of sensations and idea, which is that

-34- the sensations result from external causes, or more precisely, causes outside of my body, while those of the idea are purely internal, that is to say, shut up in the brain.

However, Sensationalists assert that there are no other differences between the sensation and the idea than those we have cited, because they do not differ in nature but in degree only, because the idea is nothing but a sensation reproduced at a lower level.

With regard to this theory, we must first note that actual sensations themselves pass through all degrees of liveliness from zero to the point where they are intolerable.

How then could there be, in this view, a difference between what is felt and what is merely thought?

We say that the sensation is produced by an impression of the outside only, whereas the idea does not have the same cause. But, what does difference between causes mean here, when one expressly states that the effects they produce (sensation and idea) are of the same nature? Is not this secretly introducing a difference that one openly rejects?

Besides, the closest causes of both sensations and ideas are the same, namely physiological phenomena in the brain. There must exist between sensation and idea a difference much more radical in nature than those given above.

This issue is so important to Philosophy that all sincere friends of this science must strive to explain it clearly and make themselves perfectly understood. I ask that we consider carefully the following observations and answer ourselves:

Are there here two kinds of facts: "There is a real content present" and "I recognize that this content is there," or "There are two different things present," and "I acknowledge that these things are different one from the other, and how, "or

-35- "There are several states or phenomena that follow one another," and "I recognize the succession of these states or of those phenomena." - Are there, then, I ask, two kinds of facts of one and the same nature, of one and the same species, or not?

I believe that all unprejudiced people will grant without hesitation that these two kinds of events differ from each other *toto genere*. The most varied elements of real content can be combined in the most varied ways, mingle as you wish, and even enter, or weld to each other; no combination of facts and circumstances purely objective, physical, can produce the consciousness that there is something real or that a particular content presents *relation* and differences. These affirmations are something that stands next to the objective content, which differs from it, but involve the belief that they are equal to an objective content, that they concern it and make known its existence and nature. Such a statement concerning the objects, implying a faith in its objective value, is a *judgment*. Stuart Mill said exactly: "The propositions - except where it is the mind itself which is the subject - are not assertions about our ideas of things, but assertions related to the things themselves. To believe that gold is yellow, it is no doubt I have the idea of gold and the idea of yellow, and something relative to these ideas needs to happen in my mind; but my belief does not relate to those ideas; it relates to things." (1)

The fundamental mistake of the Sensationalists and in general of the Empiricists, is that they take this belief present in ideas, judgment, affirmation and negation for an objective fact, physical so to speak, which they confound with

(1) Mill, *Syst., Logic*, I, p. 96, 1880.

-36- the mere combination of different elements of a real content or that must result, following the Laws of physics.

The penetrating thinker who in the passage quoted above, spoke so well of judgment, said, for example, on the conscience of the similar and succession: "The resemblance is nothing but our sense of similar, nothing but our sense of the succession" (*Log.* 1, p. 75). But, we shall consider it more closely.

In order for things to be similar, there must be two at least; because resemblance is an agreement in the nature of several things. These could be as distant as possible from each other, and even find themselves at the two ends of the earth without any harm to their likeness. Rather, what recognizes the similarity of two things or more must necessarily be one; it is indeed in bringing things together to specifically consider them one and the other, that we can notice their

similarity and dissimilarity. Knowledge of the similarity of two things cannot be contained in these same things.

It is an affirmation that relates, it is true, to similar things, but that is worn out or occurs outside of them. This is even more evident for the succession of things or states. The sequence of states is not, of course, something that exists alongside and outside of them - in this Mill is quite right - but the knowledge or awareness of the succession is near or outside. I cannot of course know that a state *B*, is followed by another, *A*, without having in consciousness past state *B* - nobody would question that. For me to see and recognize that three states or more have followed, I have to have them all together in the same consciousness, at the same

-37- time, because they are then seized in an express relation.

If, now, the successive states in themselves must be simultaneous in their ideas, it is clear that the idea of their succession is something different from their succession itself. But, there is more. To be aware of a succession, I must not only have these past states present in my idea, but also recognize them precisely as past. Now, this is a widespread theory that the past can be known immediately. Kant himself holds, as we know, the idea of time or succession as an immediate intuition or even as the form of a sense, in other words as some kind of sensation. But, there is no other theory that shocks more obviously common sense. Indeed, to say that one can perceive the past immediately as past is like saying that we may perceive the non-being immediately as non-being, which makes no sense because, the non-being can obviously be the object of no experiment. The succession of inner states is, it is true, given us immediately with them, but the awareness or knowledge of the succession can nevertheless be given us only by reasoning and is never the work of an immediate perception, as I will show in Part Two.

There is no denying that when there is memory of previous impressions or sensations, knowledge of it is not only a simple reproduction, but is an idea that differs, as to being, of all simple impressions or sensations, since it precisely contains statements about previous objects past and, therefore, external to it. But, it is the same for the perception of what is present. What proves it without doubt is that we see the content of our sensations as a world of bodies in space. It is absurd, everyone agrees, to say that a sensation is a mile long; but

-38- it is as absurd to argue that it is an inch long, or it is triangular or square, that it has a right side or a left side. The spatial extent, indeed, is a quality, not of sensations in us, but of the bodies outside of us.

Our ideas of extension, size, form, remoteness of bodies, etc., cannot be a pure reproduction of sensations nor copy any of them. In the chapter of Part Two where I deal with the idea of space, I will explain it all in more details.

Now, all the sensations that can be called objective, because we do not recognize in them our own states, such as color, sound, temperature, etc., are taken for something external to us, which is projected in space outside, while in fact they are and remain in us. This projection, as we have already demonstrated enough, cannot do that in ideas. The content of sensations is not thrown out of us in reality, but it is reflected in the idea *as* outside. But, for that it must be present in the idea (ideal); because what is not in our ideas, we cannot know.

§4. About knowledge of internal states.

Regarding the objective sensations (colors, sounds, etc.), which are still known as something foreign to the self, no one, I hope, would claim, after the foregoing considerations, that they are not different from the knowledge of it, that the *knower* and the *known* are one and the same. But, there is still the question of whether our inner states also, our feelings of pleasure and pain, diseases of the heart and the movements of the will, which are the subject of our proper being and are never attributed to external things (1), cannot

(1) Feelings of joy and pain can, indeed, be attributed to external things but not my sensations, as I know my own sensations of color, etc., as qualities of external things.

-39- be known other than by ideas that are different themselves from these states. It seems, in fact, paradoxical to say that our inner states can be for us absolutely unconscious, that they do not exist for us, if we do not have one particular idea of them. Many thinkers have denied it resolutely. Brown, both Mills [James (1773-1836) and his son John Stuart (1806-1873)], Hamilton and others agree on this point. These are the words of James Mill: "Having a feeling, is to be aware, and to be conscious is to have a feeling. To be aware of a pinprick, is just to have this feeling... but though I use these expressions for my sensation, when I say I feel the prick of the needle, I feel the pain of the sting, I

feel a bite, I am aware of feeling ... but the thing that I express in these different ways, is one and the same." (1)

That an object be either the knowledge or the idea of oneself immediately, or that an idea be its immediate object, Herbart calls the "pure ego" that perfect unity and identity of the knowing subject and the object and has explicitly shown the contradiction contained in this assumption (in his *Psychology as a Science*, etc. § 27). But, there is no need for long explanations here. The thought that an object is immediate knowledge of this object, also has as little meaning

(1) *Analysis of the phenomena of the human spirit*, London, 1869 I, p. 224. However, Bain and Mill, in their remarks on this book gave the feeling and the knowledge that we have as two different things. Bain said: "We need to add to the pure fact of pleasure the knowledge of the state as a state of pleasure and as a state that belongs to us at that time... It is, therefore, correct to draw a line between feeling and knowing that we feel" (*Ibid.* 1, 227). And Stuart Mill: "There is a mental process, beyond having a feeling, which sometimes we apply, and we would not dare say that it is wrong, the name of consciousness, and it is the fact of relating the feeling to ourselves." (*Ibid.* p. 130).

-40- as the assertion that beef is immediately a dog. A single identical object cannot be in two ways at the same time (1). And besides one would wonder why any object is not in the same way knowledge of itself immediately, and a self, then? There are reasons still easier to understand. That the idea of inner states is something that differs from them is proved by the fact that they combine with each other, that their relation and their successions are known, and this does happen, not, of course, in the inner states that pass, but only in a consciousness that fixes them and holds them together.

This is even proved more strongly by the fact that in the perception of inner states, falsity and illusion are possible and, in some ways, even occur regularly. I think I feel a pain in the foot, or a tooth, or fingertips. No one will consider my pain as something really outside myself or only as something foreign. Its causes may well be external, foreign, but the selfsame feeling is of all that we can meet, what is the most personal and most intimate. So, if the pain is not something outside myself, what does it mean that this pain appears to be in a tooth or a foot? It is represented just this way (2). But if the pain itself

(1) Th. Brown, on the contrary, thought he saw a contradiction in the distinction between internal feeling and the knowledge of them. "To suppose that the mind exists in two different states at the same time is, he said, an obvious absurdity", and that would, in effect, be an obvious absurdity if the mind was, as Brown admits, a simple spiritual substance. But, this hypothesis cannot be reconciled with the facts of consciousness and, above all, with the assumption of the identity of the knower and the known. All this will be proved quite at length in the chapter of Part Two entitled "The nature and unity of the self."

(2) Amputees often believe they feel pain in the limb they are lacking.

-41- and its idea are one, then there is no difference between what it is and how it is represented. I will not repeat here what I said on the possibility of falsity. There is falsity only where the idea does not agree with its object, and, therefore, the object necessarily differs from the idea. But, it is a fact that the knowledge of ourselves and of our inner states is still as subject to error as any other knowledge, and even more. Throughout History, men have understood this precept: "*Know thyself*" without having fully complied with it, and there are still thinkers who naively believe that in us the knowledge and the object merge immediately. Where is there, however, more diversity of opinions, more uncertainty and obscurity than in Psychology, precisely, in which knowledge and its purpose must be absolutely indistinguishable?

All other sciences are already mature, while the former is still in its infancy. If it were not so, would we still dispute the most essential points about the nature of the self?

The most remarkable in all this is that thinkers, like Hamilton, J. Stuart Mill and others, who affirm that the knower and the known are in the self immediately and absolutely the same thing, argue at the same time with the greatest force in favor of the doctrine of the relativity of all knowledge, and even consider it the most important in Philosophy. However, where the knowledge and the object of knowledge are one immediately, there cannot be any relationship between them and, therefore, there cannot be any relativity of knowledge. The knowledge that the self would have of itself and the being of the self, in that hypothesis, would not be something relative, but indeed something absolute. Because, for a relation, it takes at least two things between which it is established.

§5. Summary of previous observations.

-42- By the word *sensation*, we understand a content present in consciousness, which has no relation to things outside of consciousness, and contains no affirmation relative to these things. Of this kind is the pure sensation of a color, a sound, a taste, a smell, etc. By the word *idea*, on the contrary, we mean a content present in consciousness which contains the affirmation of things outside of itself, especially the belief in the objective existence or past existence of what is represented in it. Of this kind is the idea of color as a quality of things seen, the memory of our own past events, etc. The question now is whether the sensation may, under certain conditions, change into idea, that is to say, if an object which originally contains, in its own nature, no affirmation relative to other objects, no belief in their existence, can, through any foreign action, come to produce in itself this belief? Supporters of the *a priori* say it is impossible, that belief in objects proper to ideas is something primitive and special, nothing analog to the world of objects and cannot find in it anything grounded. Empiricists say otherwise. They, therefore, have to show how believing or not believing, and in general, any intellectual function and logic, originate out of facts and elements foreign to knowledge, physical or objective. But, none of them have even tried to show really; they always say that the idea is something derivative, but they never prove it. The particular relation to objects is the special nature of the idea, they implicitly assume it, while they ostensibly deny it. Hume made a small effort to establish that belief is an effect of the combination of

-43- the ideas (1), but he had for this purpose to regard it as a "vivid feeling", more than usual, as if saying that he had understood nothing, a doubt he acknowledged somewhat himself. The belief, in fact, is not a feeling since it can be related to feelings and absent objects, or even not existing at all, past or future.

In two Empiricists, Herbart [Johann Friedrich Herbart (1776-1841)] and Herbert Spencer [1820-1903], there is at least an intention to explain knowledge itself; but, both show they do not have the slightest awareness of what it is. Herbart believed to have done enough when he showed in the inner states of the subject a certain representation, if not qualities, at least relations "real people" supposedly external (2). And, likewise, Spencer believes that knowledge is explained, when a correspondence between the facts in the outside world and the facts of consciousness is demonstrated (3).

But, even if such a correspondence would be possible without any *a priori* condition which, we will see later, is not the case, we would not have founded or made intelligible that science, Knowledge, the essence of the idea. There is always a connection between cause and effect, when to changes of the cause, according to certain Laws, follow the changes of its action, and no disturbing cause is interposed (4). The effect may even, in some respects,

(1) We must yet note that it is a belief in a connection between objects and not of the belief in their very existence, something that Hume held as unclear. Yet it is precisely this existence we are dealing with.

(2) See chapter: "The possibility of science," in the 2nd. Volume of *General Metaphysics*, 1825.

(3) See *Principles of Psychology*, 2nd. ed., Vol. I, 3rd and 4th parts, entitled: "General Synthesis" and "Special Synthesis".

(4) Devices that record changes in temperature, barometric pressure, etc., express very well this relation. All variations of the cause are here accompanied by changes corresponding to the effect which are then fixed indelibly and make possible the recognition of the first after they have passed.

-44- be an accurate representation of the cause, like the image in a mirror, or as the photographic picture; however, there is there no trace of idea. The usual effect does not perceive its cause; the photographic picture does not believe in the existence of its model.

Empiricists must show how it happens that some effects represent their own causes, while others do not. They should show by what cause or what cooperation an object or an objective fact - whether a sensation or something else - can come to the point of affirming or denying, out of itself, the existence of other objects, of comparing, judging and reasoning. That which responds in reality to the logical assertion is the pure existence of objects and relations; that which responds in reality to the logical negation is the pure non-being, the absence of objects and relations. Well, it is necessary to show how the pure existence of an object can raise itself to the affirmation of other objects, to the belief that these objects exist. And, we must yet make the desperate attempt to show how the existence of a content in the subject can transform itself into the denial of an object, in the awareness that something does not exist, how, for example, a present can change itself into the consciousness of a past.

By the simplest reflection, the least intelligent man, provided he is not prejudiced, will clearly see the complete inability to derive the functions and logical qualities of the idea of objective phenomena, physical (1), of which they differ in their whole being. But, it is precisely on this point that prevention among most men is absolutely invincible and we see the result. There cannot

(1) I notice here expressly that I do not take the word *physical* as a synonym of *material* but, to describe the objective, in general, as opposed to logic, only found in fact in qualities linked to the idea. So, I call sensations *phenomena* or physical objects and their Laws *physical Laws* because they are no different from other physical Laws.

-45- actually exist a greater contrast than between the accuracy and extreme care, on the one hand, with which we ask about the facts of external experience and we deduce its true nature, and, on the other hand, the negligence that prevails in research related to the facts of inner experience, and as a result of which the nature of a given so important for the whole of Philosophy is not yet recognized. As supporters of *a priori* allow themselves all possible inventions and have deduced the whole world of their assumptions, we will refuse, in general, to acknowledge the presence of *a priori* elements in knowledge. It is a Law of the human mind to always go from one extreme to another. But, as the French say, extremes meet, and we see Empiricists generally so severe for the vain subtleties of Metaphysics fall themselves by vain subtleties in explaining most of the facts of consciousness. This sad talent so often deployed in Philosophy, alas! - To make something out of nothing - we will see more than once the Empiricists boldly exercise.

There cannot be a real thought if one does not stick firmly to this Principle: what is not within a thing we cannot draw out of it. According to this Principle, one should not derive any of two objects or facts that have a totally different or disparate essence. This radical difference is found between the nature of real objects and belief in objects. The objects and belief in them, *i. e.* the physical and logical, are two sides of reality, of a totally different nature, disparate, heterogeneous, and cannot, therefore, be reduced to one another or be derived one from the other. Since pure belief in objects cannot produce any real object, likewise, pure existence, the simple nature of real objects, cannot produce belief in them. Belief is thus an

-46- absolutely primitive fact, that is to say that which, in us, believes in the object or affirms it, has exercised this function since the beginning and has not acquired it in the course of time. On the contrary, that which contains no belief in its nature, can never produce it. For, what is not within a thing we cannot draw out of it.

Knowledge is first and foremost a discovery of facts.

As facts we found the following:

1.-The idea contains an essential relation to objects, a relation of a very special kind, hardly found anywhere else. The idea, in effect, bears its object in itself, but only in an ideal way, that is to say it not only contains a repetition of the nature of the object, but also the belief in its real existence, the affirmation of the object outside of itself.

2.-Although it can exactly reproduce the object, the idea is, however, very far from being a simple representation; it rather remains in itself, without the qualities of the object, without participating in them in any way. Thus, as we have seen, the idea of succession is not successive itself, the idea of a square or a plane is neither square nor plane; the idea of grief is not grief, nor that of a fault a fault, etc.

3. The idea and its own belief are in their particular essence, a primitive fact, like color and sound. The qualities of the idea cannot be derived from any quality, any given relation of existing facts known to us because they are not of an objective nature. This is expressed by the addition *Nisi intellectus ipse*, made by Leibnitz to the known word: *Nihil in intellectu, quod non in sensu*. This addition shows that the intellect (the idea) cannot, in truth, have any other content than its immediate objects, that is to say, the sensations, but in it, though, that content exists in a special way that cannot

-47- result from any action, any combination of sensations. (1)

§6. On the knowing subject.

So far, not to embarrass the development, I represented the idea as something special, which is associated with an object. It remains to investigate whether an idea can really stand alone, or whether it is not rather a moment of a more general thing. In many cases, the latter situation is quite clear. There may be two ideas of two chairs, but if we compare the two chairs one to the other, they must necessarily be combined in the same idea. The chairs themselves are obviously not united, since they remain outside the idea and independent of it. And

the impressions produced by the chairs are never united, because they cannot but present themselves one after the other, and never together,

(1) The nature of the idea will never be understood until and unless we know its role in the world of experience. As we have seen, the nature of the idea is unclear, because we do not understand why a single particular content should be present twice, once as a feeling or sensation, and another time as the idea of that feeling or that sensation. Only the fact of error, falsity, that is to say the non-agreement between the feelings and sensations on the one hand, and their representation on the other, can convince us of the reality of this dual existence. But, how is it, if we can show it, that the ideas are there precisely to serve falsity, a naturally necessary appearance, without which the existence itself of the empirical world is impossible and thus affects our whole experience? This is a fact which is amply demonstrated in the course of this work. We must not say, however, that something is wrong because it is related to the nature of the idea. On the contrary, it rather belongs to the nature of the idea to be true, that is to say, to represent its object as it is, which is why the right Laws, the logic Laws of the idea (or thought) are the Principles of truth. But, for the need of appearance or illusion, we very well understand why there are ideas in general, and why it is of the nature of the idea to refer, in the special way mentioned above, to an object outside of it and and different.

-48- to the consciousness or idea. Only the idea itself may, consequently to its ability to reproduce its contents, give itself a diversity as simultaneously present. It is in the idea that various contents can be compared. But, it is precisely then only an idea or a consciousness, whatever the diversity of content and the multitude of objects it relates to. A particular idea cannot produce more arguments. Because, in an argument, either a statement is taken from another, or it is denied, or it is limited by another; it is obviously possible in something, in which different statements can be compared and weighed. And, if we said also that a particular idea implies or contains affirmations, judgments about an object, that object is actually a very complex thing, like a chair, a house, a man, etc., in the knowledge of which necessarily lots of affirmations are compared and linked. There is actually no element of the content in the knowing that is bound with other elements. It follows that there are not really particular ideas, but only a particular content (individual) of ideas, and the ideas are distinguished from each other and have only a semblance of individuality by their content. What represents, compares, judges, and reasons is necessarily also a unit that captures in itself a variety of

contents, and accomplishes on them all the operations that we find through the idea. This unity is called the knowing and thinking subject.

One immediately clear fact is the double consciousness of self and the outside world. We think we know ourselves and other things that exist around us; we distinguish, in the given content, a part proper to us and one that is foreign, both opposed to one another as the inside and the outside. In this fact, the unity of the subject

-49- manifests in the clearest manner in the world.

Proper and foreign, as inside and outside, are indeed simple notions that express a certain relation to a common unit. Two things cannot be distinguished immediately, in themselves, as proper or foreign, inside or outside, but only with respect to a third thing to which one of the other two is proper and one foreign, one inside, the other outside. We know that the knowledge or awareness of the difference of two things is something different from those two things. It is clear thus that it is consciousness or the subject, by distinguishing the proper and foreign, inside and outside, that provides the *term* of comparison for this distinction. When in the given content, I recognize something as proper to me, I obviously relate my self (the knower), to myself, and even when I recognize something as foreign to me, I obviously deny it myself. We know as our own inner states feelings of pleasure and pain, and conversely as something alien and outside the sensations of color, sound, etc. If there was a knowing subject who, on the contrary, should recognize as proper the objective sensations, and as foreign the feelings, with respect to this subject, colors and similar things would apply to the inside, pleasure and pain to the outside. But, for all we know, inside or outside, the knowing subject is in us the common unit and always identical, who unites not only the present, however varied and multiple, but with it also the past and the future in consciousness. It is possible that we cannot make ourselves a sufficient idea of this unit, as the unit of the self in general, but we must not deny it.

Ideas are not some kind of spiritual or psychic atoms, either,

-50- that approach and fight spontaneously, but they are *acts* of the knowing subject.

By the words *activity* and *spontaneity*, we refer to the causal contribution of a unit in a multiple becoming; such intervention is visible in the judgment, in reasoning and in all transformations of the

represented and the known. We must consequently conceive that the Laws of the representative subject, and knowing subject himself, are different from the Laws of the content that appears in the subject.

What content is offered in our perception, depends on physical causes. We cannot indeed perceive anything not given to our senses. The very act of our will to think of this or that not present, of objects that are not seen at the moment, is produced by physical Laws. The intensity of the sensation, the association of ideas, the power of memory, the direction of interest, these are the influences that decide what ideas, at such time, occupy the field of our consciousness. One could establish upon that, in fact, a "*Mechanics of Ideas*", difficult, however, to treat mathematically, as Herbart thought. Instead, what we think of the object represented, based on the current content of ideas, is not a physical phenomenon, an effect of physical causes; this belief is rather independent of such causes and unrelated to them, if it is true. Hence, the Laws upon which our belief, our conviction are founded, are not physical, but of some other nature.

As soon as we consider that it is the essence of the subject to relate to objects the content that occurs in him/her, and to form judgments not only immediate, but mediated by reasoning, according to its own constitution, on the existence and nature of objects - it is clear to us that the Laws of the subject itself has a necessary relation to

-51- Objects and involve design; they cannot be anything other than general Principles of assertions concerning the objects, that is to say an inner need to believe something about the objects. These kind of Laws are called logical, and they differ as to their inner essence, from the objective Laws, physical, to which also belong the Laws of association. To make this distinction clearer, let us see what may be the simple association.

There are, as we know, two fundamental Laws of association: 1.- According to the resemblance of the represented contents, and 2.- According to their common link (what the English call *contiguity*). The ideas present in the self tend to recall in the memory earlier ideas alike them, that is to say, to make them present again to consciousness. No recognition, no memory, no comparison of the past with the present would obviously be possible without this Law of reproduction. Dissimilar contents are also associated owing to the fact of having occurred simultaneously in consciousness, so the idea of one recalls the other. Life offers us examples at every moment. When I see

an object, a horse or a dog, for example, I have an impression of their immediately view. But, I immediately add to it the idea of other qualities of the horse or dog that I learned to know by previous experience, and the idea of which is indissolubly united in my consciousness with the visual image of these animals. The question is whether the combination of the reproduced content can, alone, without the participation of other factors and other conditions, produce judgment and reasoning.

Take the simplest example of a judgment and reasoning. If I recognize and if I say two things, *A* and *B* are connected with each other, it is a judgment. But,

-52- If only one of two things, *A*, is given, and if as a result of this knowledge, I affirm the other thing, *B*, is also present, it is a reasoning. What is here the role of the association? Its whole function is solely and exclusively to provoke the appearance of the contents *A* in me, in my consciousness, to cause the appearance of *B*. Everyone knows that there is neither judgment nor reasoning involved. The association is a mere objective causal Law, quite similar, as to its essence, to other causal Laws which occur in nature. But, as soon as the power of the subject to bring about its contents to objects, the association leads to judgment and reasoning. Because, the appearance of content in my consciousness is then linked with the affirmation or belief that a corresponding object really exists. Then, and for the first time, the connection, the association of *A* and *B* ideas in my consciousness becomes a Principle of knowledge, according to which the presence of the thing *A* follows the presence of the thing *B*. The relation of the content to the object is the only basis for the possibility of judgments and reasoning. But, that relation, specifically, could never be born of the association. Because, for there being a connection between two things, they should be given together within a consciousness or occur in the same consciousness. Now, the object of knowledge can never be met with in consciousness, in the idea, nor, therefore, form any association with the contents of consciousness. But, it might be argued that the object of knowledge does not differ from the knowledge itself. Well, then, it won't never be question of an object of knowledge, or of judgment and reasoning, as these words mean nothing more than the idea the subject brings out of himself. There would not be in consciousness anything more than a varied content, the disappearance and reappearance of which would be in accordance with

-53- physical Laws, and nothing more. Judgment and reasoning are, therefore, not functions of the represented content, but acts of the representing subject, just as belief and non-belief are not a physical state inherent in the content shown, but a state of the subject who represents objects to himself.

If we consider the theories that the Sensationalists have proposed concerning the facts of knowledge, we can see right away that they always implicitly assume what they openly deny, namely the primitive relation of the knowing subject to objects, the faculty of knowing objects that can be in any real content, either internal or external, or result from purely physical Laws as those of association. I will have opportunity to demonstrate it later; it is sufficient for now to be well persuaded that the Laws of association are immediately nothing but the Laws of represented content, and only mediately can become those of the subject. The proper Laws of the knowing subject are of a totally different nature, as they relate to the design of objects that are out of the idea; these are primitive rules of knowledge, Principles of affirmations, of a logical nature and not physical. (1)

The elements, Laws, conditions of knowledge found in the very nature of the subject, it is customary, since Kant, to call them *a priori* in opposition to anything not proper to the subject himself, something not originally in him but coming from without, produced or acquired in any way in the course of his development. These

(1) A physical Law is a way, or a kind of immutable, simultaneous, occurrence or succession of phenomena and facts. A logical Law, by contrast, is an inner disposition to believe something touching objects. The physical Laws governing the actual sequence of events in the order of time, the logical Laws governing the logical sequence of thoughts in the order of reason. We clearly see that they are all different.

-54- last elements of knowledge, we call *a posteriori* or empirical. First, we attach all the contents of knowledge, because it is precisely the nature of the knowing subject not to have a proper content. Empirical are also the Laws of the links of sensations, the Laws according to which, in the objective world, determined effects precisely obtain of determined causes, and such a determined complexity of simultaneous impressions manifest the existence of a thing (like a coin, a tree, table, etc.), - in short, the objective uniformity in succession and simultaneity of phenomena. Empirical, *in fine*, the

link that is established in the content reproduced of consciousness by the association in the course of life. These three types of data: 1.-The content of knowledge; 2.-Its objective connection according to natural Laws; and 3.-Its subjective relation in reproduction – do form what is given to the subject, what does not leave the subject, but fills him or her and often determines him or her.

I tried to highlight in this chapter all the elements of knowledge, as much as seemed necessary for the understanding and the establishment of what is to follow, and I hope that no one will find these detailed explanations too lengthy, if we consider how much the whole direction and, one might say, the fate of Philosophy depend on an accurate understanding of this specific point.

Chapter 3

Of mediate certainty

§1. How is error possible?

When error is found as a fact, and we have seen that there can be in an idea many things

-55- not corresponding to anything in reality, we understand why, for consciousness, it is only the idea itself that can be immediately certain. But, precisely this property of the idea of relating primarily to real objects existing outside of it, implies the certainty that such objects of necessity correspond to the idea in general. And we see in effect that there are cases where we absolutely cannot doubt the truth of our knowledge, that is to say of its agreement with its objects. Foremost, we will put the perceptions of our own inner states. If, for example, I feel pain, I find it impossible not to believe that there is in me a sense of pain because I am myself, in this case, as much the knower than the object of knowledge. It is the same for the perception of objects that do not belong, it is true, to my own subjective being, in which I can do nothing by myself, but which meet in me, though, and nothing differs from my ideas, namely objective sensations of color, sound, taste, smell, etc.

The relation, founded on the very essence of the idea, and to corresponding objects outside of it, guarantees to me the objective existence of what I see in myself. Rather, what is outside of me can be neither seen by me nor appear to me immediately certain. A "perceived object" and "an object that is in me" are equivalent concepts.

But, some Philosophers - particularly in Germany – have entangled themselves so much in the study of the idea that they have come to no longer see the essential relation of the idea, that is to say of the representation, to objective reality; this relation, though, makes the essence of the idea. Hence, the need for them to find a passage from the ideal to the real (1), while

(1) In this dilemma, they have had recourse to the affirmation of the "identity of thinking and being." This sounds very well in this form, but the statement appears absurd as soon as it is expressed in ordinary language. So, in fact, it means identity of the idea with its object, that is to say that the idea itself is the

object, which has no meaning. For, the essence of an idea as such is precisely that it is not in essence what it represents, otherwise it would not be an idea. How, moreover, would it be possible, with this assumption, to ascertain the fact of error?

-56- the vulgar do not think to worry about it, since this passage is always an easy one. Undoubtedly, the immediate perception of objects constitutes only a part of our knowledge of reality; much of this knowledge is reached, or obtained, mediately. Only, the problem is not, how we move from knowledge to objects in general, but from an object to another in knowledge. And this problem constitutes no particular difficulty.

Based on the above explanations, it is clear that in the simple content of ideas there can be no falsity, because it is precisely characteristic of the idea to have no special content. When we see, hear or taste something, it is absolutely impossible to doubt that there is outside of the idea something seen, heard or tasted, a color, a sound or a flavor (at least as sensations.)

Hence, the error can never be in the content, but only in the connections and relations of the represented content, and affirmations relating thereto. We must now see by what reason it happens.

The reason lies in the power of the idea to reproduce a content it once had. The reproduced content can easily enter into a combination to which, in reality, nothing corresponds. In itself, it does not give rise, it is true, to falsity. But, as this combination is formed in the subject who, in its nature, knows as external object to himself any content that occurs in his consciousness - falsity necessarily follows.

-57- The subject precisely mistakes the simple, subjective, combination of the reproduced content that formed in him for an objective combination of things, outside of himself. The main source of error is the association of the reproduced ideas.

The subject may, without doubt, come to the awareness that all that is in him has no corollary in reality, especially when he notices the influence he exerts himself that his own will exerts on the formation of the content reproduced in his imagination. But, the adhesion of ideas as a result of their continual meeting develops into the consciousness of the subject a force whose penetration the subject has too often to suffer. If an idea, currently present, irresistibly attracts another by virtue of the association, and imposes it upon

consciousness, the subject - whose very nature is to relate to outside objects, what is present within - cannot help see precisely in this kind of imposition the mark of an objective source, and in the indissoluble connection of his ideas a link with corresponding objects or facts themselves. This force is so great that the subject generally comes to an incapacity to even discuss it, but obeys it as an inner Law of the function of knowing.

Besides, the association of ideas, as we shall see, is a regular reasoning Principle without which knowledge could not make any progress. So, not only does it mislead beginners and children, but even the most penetrating and most experienced thinkers, and even those that claim to explain everything by the association. It is particularly in Philosophy that this force acts as mistress of error.

We see men who affirm as obvious and certain the falsity of a theory, and always come back there, however, because they are driven by an invincible habit of their thinking. Among the biggest, I will mention the habit of thinking that makes them consider any report in reality

-58- as a causal relationship (cause and effect), or take it as such. The worst mistakes of Metaphysics, I hope to show, must be reduced to this habit as their source.

But, we are not here considering the causes of our errors, but only their possibility, and in this regard what has been said is enough.

§2. How is the consciousness of error possible?

I have tried to show in the preceding paragraph how a false claim, a false belief, may occur in the subject. The question is now to ascertain how the subject can arrive at the realization that one of his statements or ideas is false.

Empiricists, who have to derive knowledge from originally not knowing elements must show how in general the affirmation of a thing, the belief in the existence of this thing, can happen in another object. We, on the contrary, who have recognized this belief as a primitive fact, not derivable, as a fundamental quality of the idea, we must show how it is possible that the affirmation of the object in the idea or in consciousness can sometimes be destroyed, how it happens that we do not believe in the real existence of an object that we think of.

The essence of the idea and the knowing subject is, as we know, in affirmations touching objects. But, an assertion can never be a negation of itself or of another affirmation, nor contain any such. How does the subject arrive at the consciousness of a negation? By comparing various objects, it is true, the awareness comes that one is not like the other. But, from this awareness to the knowledge that the idea itself deviates from its purpose, with which it does not agree, there is no direct passage

-59- possible. For, if the nature of the idea consists precisely in this that it represents an object, one cannot, of course, judge by it immediately that it does not represent its object (as it is). All the facts allow us to conclude immediately is that there could be two different ideas of the same objects. But, there is no evidence to conclude that one of the two must be false. For, it is possible that the subject may be different from itself, and until we can know anything of objects other than by means of specific ideas that we have, the difference between the ideas will be for us a sign of a difference of the objects themselves. - If any of these ideas is an immediate perception of an object, if the other rather reproduces it simply, we grant that one contains a greater strength of affirmation (a higher certainty) than the second. But, while ideas do not clash on the same subject, the subject cannot be apprised of the difference of certainty. For, he has no opportunity to oppose the one to the other. In themselves, specific ideas and affirmations may never be in opposition.

But, if there is a general Principle of affirmation regarding objects, namely that all real objects are identical to themselves, or cannot be different from themselves, then necessarily two ideas different one from the other, which concern the same object, must be in opposition to, or in conflict with, one another. The affirmation of one denies the affirmation of the other, the truth of one excludes the truth of the other, precisely because they cannot be both true. The one that has a lesser affirmative force, is recognized as false. It is precisely on the basis of this Principle that the past, and we will see it in the Part Two, is known as past, and that the awareness of the succession is made possible in general. The general Principle of affirmations

-60- is also a general Principle of negations; it is through it alone that we can come to the awareness that something (that is to say something represented) is not.

Now, can that general Principle be derived from experience - that is to say result from the simple comparison of these particular ideas present? This assumption obviously confines us in a circle. For, the testimony of particular ideas should be directed precisely against themselves, something that cannot be. Without the distinction between true and false and without the knowledge of successions, experience would not be possible and this distinction as well as this knowledge are possible only because of this Principle. I consider these preliminary indications sufficient for now. The entire Book Two of Part One is devoted to the proof of the *a priori* nature and the objective value of our Principle.

But, when two ideas of the same object are present and, for some reason, we already know that one only of the two may be true, the question arises: How can we distinguish the true idea of the false one?

The immediate perception of an object always suggests an immediate certainty of its accuracy or of its value in itself, and any other idea contradictory to it is necessarily false.

We have here an infallible touchstone to distinguish right from wrong. Only, in most cases, we are not able to use this touchstone directly to convince ourselves with an immediate perception of the accuracy or inaccuracy of an affirmation or an idea. It is usually reproduced ideas we have to distinguish, that is to say, ideas that relate that only by reasoning to an object. The question is then: What is the reasoning and what guarantees, what criteria of its accuracy can it offer?

-61- I am going to try in the next paragraph to answer, although temporarily, to this question.

§3. Preliminary considerations on reasoning in general and particularly on syllogism.

Reasoning is a mediated knowledge, knowledge of an object by another. Reasoning is that we affirm something of an object that we have experienced with another. However, this obviously implies the assumption that these objects are identical or agree with each other.

A conclusion, therefore, has exactly as much certainty as this assumption has in the case in question.

Now this is precisely where the two great methods or two kinds of reasoning differ: when the identity of several cases is certain for us *a*

priori, the conclusion of the one to the other is a *syllogism*; but, when the identity or rather the similarity of the cases is only observed empirically, the conclusion from the one to the other is an induction.

If the identity of several cases were never and nowhere definitely known to us *a priori*, there would be no syllogism, but only a syllogistic process which simply forms the descending part of the induction (as a deduction).

But, to be certain *a priori* of the identity of a number of cases, is precisely to have a general knowledge *a priori*. Empiricists, who deny the possibility of such knowledge, will show themselves consequent in considering any deduction as a moment of the induction and the syllogism as a tautology, as Stuart Mill did in his Logic. But, we must now look closely at both the syllogism and the induction, although this will be addressed in the Part Two, with much more detail.

The true syllogism is the substitution of the similar to the similar or the identical to the identical. As we know, all

-62- syllogisms are grounded in two judgments or two propositions, called premises, which have a common term. In the conclusion, this common term is cut off and the other two are united by substitution of like to like. The fundamental axioms of all syllogisms are the following two propositions: 1.-Of identical things we can affirm the same thing, and 2.-Of non-identical things, we cannot affirm the same thing. The first is the axiom of all positive conclusions, and the second that of all the negative conclusions in the syllogisms. Now, these axioms, like all identical propositions, are immediately certain; hence, all true syllogisms are perfectly accurate. The question is whether there is such a syllogism at all.

It is indisputable, indeed: we do not derive from empirical data the possibility of a multitude of identical cases, we assume them simply, as happens in Arithmetic and Geometry. Arithmetic does not ask if there are in reality perfectly similar units, it assumes they are so. It abstracts them from all the differences of things; the units on which it operates have no other quality than that of being units and to be together to form a sum. In Arithmetic, there is, therefore, a reasoning by true syllogism, by possible substitution of like for like. Geometry does not take, either, as a basis of its demonstrations empirical considerations of lines and figures that would exist in the reality. The straight lines, triangles and circles in which it operates, are only those

that meet its definitions of the straight line, triangle or circle. Their identity is ensured from the start, and Geometry thus proceeds in its reasoning by true syllogisms, by substitution of like for like.

Why can we not abstract in the same way

-63- anything else, a color, a sound or other similar qualities, such as lines and figures, and conclude by the same syllogism, something more, *a priori*? Kant replied that this requires *a priori* synthetic judgments, which will provide the first premise.

A synthetical judgment is one that expresses the ratio or relation of two things or of two determinations of a thing. When I say one thing *A* has, among other qualities and characteristics, the characteristic *B* it is a synthetic judgment, because I affirm the the relation of quality *B* with other qualities of *A*. If, on the contrary, the thing *A* has no other qualities than *B*, the judgment would be: *A* has the quality *B*, or as we simply say ordinarily: *A* is *B*, the same judgment, according to the nomenclature of Kant, an analytical judgment. (1) *A* and *B* would not differ in effect from one another in any way and the predicate would only repeat what was said in the subject. By synthetic *a priori* judgment we, therefore, understand the expression of an *a priori* knowledge of the connection of two determinations.

It is easy now to see that reasoning actually employs only synthetic propositions. Because, if there were a multitude of identical cases enclosing in themselves no relation of the diverse, and having only a single quality or determination *A*, the observation of the identity of some cases could obviously lead to no new affirmation, no new judgment, besides the one that occurred in the selfsame observation. (2)

(1) We will return to the difference between synthetic, analytical and identical judgments, particularly in Part Two.

(2) We may notice that the units, for example, the ones that Arithmetic uses, have no diversity of determination, but are perfectly simple and thus provide material to the syllogism, however. Arithmetic concludes nothing about the nature of the units and does not go from one unit to the other; its conclusions are related to the various ways of forming a sum of units. Since units themselves are taken from the beginning to be perfectly similar, it is certain *a priori* that all ways of forming a sum are perfectly similar quantitatively and we can consequently go, through syllogism, from one to the other. - It should also be noted here that, although the process of syllogistic reasoning always consists in the same function, that is to

say in the substitution of similar or identical for similar or identical, it serves however in two manners to get in different cases different results. For, either it helps determine the similarity or identity that could not be known immediately, or it allows to know the relation that could not be immediately perceived. There are in fact two kinds of synthetic judgments, those in which the similarity or identity of things or quantities is affirmed ($A - B$) and those in which we affirm the connection of things or of determinations and whose formula reads: A is (or better is linked with) B . (See the related chapter of Part Two for further development).

-64- If, instead, determination A is linked indissolubly with another B , I can know and affirm that B must be where A is, which is a reasoning. If the connection of A and B is for me an *a priori*, this argument is a syllogism and, if not, an induction. In effect, through experience, I cannot know the connection of two things A and B other than by pure empirical observation of several similar cases where A , and B are presented together.

A material *criterion* for the accuracy of the conclusions reached by syllogism, as we have seen by the above, is not necessary. There is syllogism in effect only when the identity of the data between which we conclude is certain *a priori*, and another guarantee is useless (1).

If the premises are not themselves immediately certain, deduced by syllogism of something immediately certain, there is no syllogism as such, but deduction of inductions made before. We must ensure the material truth of these inductions; but the deduction did not

(1) However, we may consider the truth itself of an *a priori* knowledge, as we shall see in Book Two.

-65- need this test because it does not introduce any statement that is not contained in the premises or in earlier inductions. There can be only formal criteria for the accuracy of reasoning by syllogism, and we give them in Logic. These formal rules of syllogistic reasoning are used in reasonings, so that words and thoughts correspond exactly; the rest is self-understood. Once the premises are set exactly, everyone immediately knows what follows or not. The negative general *criterion*, the Principle of contradiction, we suppose beforehand as obvious. For, what contradicts immediately does not make sense, does not express any real thought.

§4 Provisional considerations of induction.

When the similarity of two cases is established, is empirically observed, the conclusion from the one to the other is, as we have already said, an induction. There is properly in reasoning, we know that, only cases where a combination of the diverse occurs. Now, as a combination of the diverse can never itself be perceived, induction consists precisely in that the simultaneous reappearance (immediately or right after) of phenomena of the same kind, we conclude there is a connection between these phenomena. Similarly, when we encounter some phenomena of the same kind, we infer the presence of others that we have often seen with the former, though we do not observe them right away.

I will not dwell on the fact that such an inductive inference is working always, and that without it there is no overall experience or knowledge of reality because it is too obvious.

There are thinkers who claim that to assume a connection between phenomena and expect that these phenomena

-66- always occur together, is not the same thing.

This is a point that can obscure the whole theory of induction. We must, therefore, treat it as seriously as possible. It is immediately clear that there can be no other reason to expect to ever find together certain phenomena than the assumption that these phenomena themselves, and not only their ideas in us are related. The two things are just one. When we say that a phenomenon must happen or will happen because another happens, we affirm precisely, in so doing, that the being of the first and the second are linked. When we do not believe we have to admit a connection between phenomena themselves, we have no right to expect that they always happen together.

The question around which everything revolves is this: do we have a rational reason, that is to say, derived from something immediately certain, to assume a connection between phenomena and, thus, can we expect to see them repeat in the future – or is that assumption and expectation the result of a simple habit to think of them as always together? In the first hypothesis, the inductive reasoning from past cases to future similar cases would be legitimate and certain within necessary limits; in the second, no induction would have either legitimacy or certainty. Because, our habits have nothing to do with the nature of external objects and cannot give them Laws.

But, I think that all unprejudiced readers will grant that in our intelligence, anywhere, there is a hidden reason to believe that the phenomena which always occur together are immediately or mediately bound together.

Because, to admit that the constant fact of phenomena happening together for a long period of time is the work of pure

-67- chance, is a thought hard to digest. But, experience alone gives us no reason for this belief. It offers us, in the past, a uniformity and regularity that we have observed, but no guarantee that this pattern will occur again in the future.

When we base on experience alone our conclusions from the past to the future, we move in a circle. David Hume has shown it well: "Any inference from experience, he says, implies, as its foundation, that the future will be like the past and that the same powers will meet with the same sensible qualities. But, should any suspicion arise that the course of nature will change and that the past only cannot be the rule in future, all experience becomes useless and may not lead to any reasoning. It is, therefore, impossible that any argument drawn from experience, can prove this resemblance of the future with the past, because this whole argument is itself based precisely on the assumption of this resemblance. However regular the course of things has been until now, that alone does not prove, without a new argument, that it will be so again in the future." (1) As Hume could find no rational Principle for this belief, he explained as an effect of a simple habit any inductive reasoning, as if saying he refused it any objective value. If the Empiricists want to be consistent, they must all admit this theory of Hume. But, they are not all consistent. They all believe in a real connection between phenomena, and thus assume a rational Principle for this belief. But, instead of saying, "We do not know this rational Principle" they affirm, "There is none," or they retreat back to Hume and say the

(1) *Philosophical Essays on Human Understanding*. IV, p. a, *sub fine*.

-68- relations, known empirically, are a sufficient guarantee of their persistence in the future.

There is no denying that the purely empirical basis of the argument is only the association of ideas. This curious Law of reproduction of the

contents leads us, in a purely mechanical manner, precisely in the direction that we would have otherwise attempted with reflection, namely, to reason from like to like. But, precisely because this Law is mechanical or physical (not logical) and does not concern the nature of things, it leads us to both accurate and inaccurate reasoning. I have already indicated the effect of association. It consists in this that a present idea brings in consciousness or in the memory: 1.-Another idea similar to it; 2.-Another idea dissimilar but related to it by the fact of having repeatedly presented itself with it. But, when the nature of the knowing subject leads him or her to recognize everything that is present in the consciousness as a real object or as a determination of a real object, any idea brought back into consciousness by the association, will be related to an object, or considered or affirmed as an actual manner of being of this object. Whatever is represented together is, henceforth, known as existing together, as linked. The child seeing around him a lot of things united most of the time, has at first no awareness of the possibility for these things to be separated. For example, the clothes of his caretakers must seem to him to be part of these people. But, when he has noticed once or twice things that had always seemed united to him were actually separable, the association or the binding of these things in his mind is destroyed. The association of the representations of these things does not need to be undone as such; it may continue to appear in the memory; but the child does not believe

-69- any more that the objects of these representations are linked and that if one is present, the other must also be present. This is how the correction is made. We are not just satisfied with the simple observation of cases of union and separation, but we also do research, with reflection, on the objects that are in our power to test whether they are separable or not.

Scientific methods of induction are not anything other than the conscious, and as complete as possible, development of this method of correction. But, as the purely empirical Principle of reasoning also leads to both many false and true results, as experience itself tells us that the things that had long presented themselves united, finally appear separable, this Principle offers us not an infallible criterion to distinguish between true and false consequences, and doubt attaches to the very root of the whole argument. For, all that experience can offer us is an indication that some things, in no known cases, present themselves united or separated; but it is in no way a guarantee that it

cannot be otherwise. Hear about it the chorus leader of the new Empiricism, Stuart Mill: "The universal type of the reasoning process" is, according to him, the following: "Some individuals have a given attribute; an individual or individuals similar to the first by some other attributes are also similar in the first attribute." (*Logic*, I, p. 229). And what is the guarantee for the accuracy of this empirical generalization? Mill answers us in another place: "To verify a generalization, showing that it stems from (or that it is contrary to) some stronger induction, some generalization resting on a foundation of wider experience, is the beginning and the end of the induction logic." (II, p. 100).

-70- All this amounts to state the fact that certain phenomena or certain determinations always occur together. But, the reason to conclude from this fact, its return in the future cannot be met, as Hume has shown, in this very fact. What we have always found to be true, we tend to take for a truth definitively: this is all the empirical basis of induction. But, the Empiricists themselves, and Stuart Mill in particular, repeatedly state that "things are not really related because their ideas are linked in our mind." It is, therefore, clear that the Empiricists, if consistent, cannot speak of a scientific basis for the induction.

What renders uncertain the conclusion from the past to the future, is especially the element of change. In particular, everything changes, and the question is, what guarantee do we have to encounter something that is as it has been before. What limit can we assign to change?

No doubt we see a regular production of certain phenomena, sometimes simultaneous, sometimes successive. Science can even have found the Law that nothing happens without constant antecedents. But, if it is just conceivable that something can happen without cause, we must not attribute much value to the generalizations of science. Because, no Law actually observed can obviously destroy or limit the possibility of what happens without any Law. While it is conceivable for a change to happen without cause, this change can arise at any time and in any place, despite all the Laws that we know, because it is precisely free from any Law and not dependent on any condition. The impossibility of such an event can never be established by experience; simply because experience shows us what is or was, but not what is not and cannot be. But, the possibility

-71- of an event without Law throws down the authority of experience.

No consistency in the order of phenomena, even often and rigorously observed, can guarantee its continuation, even for the next moment, if we can conceive of the possibility of a change without cause. Because, nothing prevents such a change to destroy the former order. We cannot confine the possibility of a Lawless becoming to a place, and exclude it from another, as Stuart Mill did, or limit it to a class or some classes of phenomena. Because, the possibility that something happens without cause, precisely means the absence of all boundaries, all effective, immutable, conditions of the possibility of becoming. Should we argue that the production of a change without a Law is not likely, given our experience to date, this assertion would not be admissible. Who can indeed appreciate the likelihood when it deals with that which is without reason, that which happens without cause and without Law?

Any assessment of likelihood already rests on an appreciation of reasons. In a word, either a change without a cause is never conceivable and possible in any way, or it is always and everywhere possible, and is to be expected at any time. There is no third hypothesis.

Any induction, in Science as well as in ordinary life, has, as Principle, the conviction, whether we know it or not, that a change without a cause is not possible, and also that the same antecedents always produce the same consequences. This conviction alone gives certainty to our expectations for the future.

Immediately and positively the Law "no change without a cause" is nothing but a Law of successive phenomena, but negatively its influence extends to the whole sphere of knowledge. Because, it first imposes a limit to the field of changes. If a change without cause were conceivable, maintaining consistency in the known groups of simultaneous

-72- phenomena would not be more assured that the regularity of successions.

It is only when it is correctly understood that a change is not possible without a cause that there is in our experience something immutable and always the same, namely the very Law of changes that cannot be in turn subject to change, precisely because a change cannot occur without cause and without a Law. The reason of certainty in the conclusion drawn from empirical data is the primitive certainty,

although something new is always presented to our senses, and despite all the changes that are available in perception, however, there are always at the bottom phenomena, something that always remains the same; that in all the specific changes nature, however, remains identical to itself in general (that is to say, in the combination of individual elements). Thus, there are in nature identical cases. This primitive certainty of the existence of identical cases is that of a general knowledge *a priori*, communicating its certainty to all inductions and giving them value and a scientific character.

The criterion for the accuracy of inductive conclusions is, therefore, first that which ensures the value of induction in general and, secondly, its special methods, whose task is to determine exactly the data we shall conclude; that is to say, to scientifically establish the observed regularity of the simultaneities or successions. I will only deal with the first criterion. One of the main purposes of this book is to prove that the general Principle of affirmation in relation to the objects above given, which makes possible, first, the awareness of the falsity and knowledge of successions contains at the same time the reason to admit identical cases in nature, the reason of the two most general Laws

-73- of reality, the Law of simultaneity and the Law of the succession of phenomena. I will try to prove that from this Principle we can also deduce the need for 1.-To consider all phenomena as part of a group that under certain conditions must always exist or be given with it (notably in the knowledge of the bodies,) 2.-To think any change in conjunction with an antecedent (Principle of causality.) This proof being established, this Principle will then be established itself as absolutely the first and only foundation of thought, as the supreme criterion of truth. But, we must of course first of all formulate and establish as carefully as possible this Principle. This is what I will do in Book Two of Part One.

§ 5. General information about a criterion of truth.

One is quite often willing to imagine the criterion of truth as a kind of magical way that we simply have to use about any idea, indiscriminately, to ascertain its correctness or incorrectness. There is nothing true in this. We cannot get to distinguish between true ideas and misconceptions by any other route than that which leads to the real ideas and certainty in general, as was indicated above. The falsity of an idea can never, as we have already said, be discovered immediately,

but only through its relationship with another. The whole idea is wrong that contradicts facts, immediate perceptions or what is legitimately concluded.

We often hear the most singular things about the criterion of truth. Kant, for example, mocks the search for a criterion and says "it is absurd to dream of a sign of the truth in the content of knowledge" (*Crit. of Pure R.*, ed Kirchmann, p. 105); But, three pages later hardly, he establishes Principles "without which no object

-74- can be thought of" and that "no knowledge can contradict without losing all content, that is to say any relation to an object, and thus all truth" (p. 108). On this point, some are non-critical, others are overcritical, or both at once. The hypercritical claim that we can never know if our ideas are correct, because we cannot compare them with their objects. Few, in this predicament, see no other course to adopt but to seek the truth not in the knowledge of objects, but in the knowledge of their order (1). But, if we cannot know the objects themselves, what can we know of their order? The order of things, in fact, does not exist outside of things and cannot be seen independently of the knowledge we have of them. This imaginary difficulty comes only from what is meant by objects of knowledge, unconditioned things, independent of the subject (bodies in particular); instead, it vanishes, if we understand by that name of "objects" empirical objects in essential relationship with our ideas, namely the sensations that are themselves phenomena. How the being of ideas guarantees the truth of the content that is given in them, I have showed at the beginning of this chapter. The given phenomena, that is to say the sensations cannot lead to any sort of doubt; it is only when their order must be recognized or their return predicted, that the error is possible and that we need a criterion to ensure the accuracy of the conclusions.

But, the conduct of the Empiricists is non-critical; they believe that it is simply from the data, that is to say from the order of the ideas themselves that we can accurately, and without other reasons, define the order of the objects, that is to say sensations. This would be possible only within the well-known assumption of Spinoza [Baruch Spinoza (1632-1677),]

(1) Lewes, *Hist. of phil.*, 3rd ed., I, p. XXXI and p. LXIII.

-75- according to which "the order and the relation of ideas are the same as the order and connection of things"; but, it is a notoriously arbitrary and false assumption, because the Laws under which ideas reproduce are quite different from the Laws according to which the sensations arise in us and bind each other. Herbert Spencer, who distinguishes himself by his rigorous Empiricism, actually seeks to prove that "the persistence of the connection between the states of consciousness (He means the ideas) is proportionate to the persistence of the connection between the external phenomena to which they respond" (*Psych I*, p. 431); but, he must himself grant that the acts of animals show us endless examples of cases where the parallelism of internal order and external order is completely missing (*idem*. p. 432). We, humans, are thus constantly exposed to error. We know that any casual encounter of objects in certain circumstances can produce an indissoluble bond of their ideas, especially if the mind (or imagination) of the observer was greatly excited, and secondly, an invariable, general Law of relation between objects can be detected by a single experience. If the ideas of these objects are then always associated or not is a question only of memory, which has nothing to do with the belief in the indissoluble connection of objects and in their certainty.

In general, when we speak of "an indissoluble association of ideas", we do not think of two distinct senses this term can have. By indissoluble connection of ideas, we can first understand that the existence of an idea in consciousness brings with it immediately the existence of another idea. But, indissoluble connection of ideas usually means something else, namely the belief produced by it that the corresponding objects are inseparable. These two things are far from agreeing, though. Two ideas can very

-76- well stand together in my consciousness before I believe in a link of their objects and, on the other hand, I can believe in the indissoluble connection of two objects or two determinations without their ideas being always necessarily united in my consciousness. If I perceived a thousand times two objects together, their ideas, due to this repetition, would coalesce and always occur together. If now I see these two separate objects, this unique collection is not enough to physically prevent and destroy the association which was formed earlier between the two corresponding ideas. They still continue to run together in my consciousness. But, my belief in the inseparability of their objects is destroyed at once. One experience was enough to destroy it. On the

other hand, I firmly believe that the nature of the triangle is inseparable from the property of having the sum of its angles equal to two right angles; but when I imagine a triangle, I do not necessarily need to think about this property.

In a word, the belief in the objective order of things is based on other grounds than the subjective order of their ideas. If the association of ideas is the source of the error, how could it also provide the exclusive reason of right concepts? Stuart Mill said it well: "If belief is only an indissoluble association (of ideas), then it is a matter of habit and chance, not of reason (1)." The belief is based on logical Laws of thought that originally relate

(1) footnote to James Mill, *Analysis*, etc., 1, p. 407- It is all the more surprising to find in the same Philosopher the assertion that logic, the Laws of right thinking theory, is a branch of Psychology and borrows its Principles from it (*Exam. of the Phil.* of Hamilton). However, we should not establish the Laws of thought by simply considering a class of objects, such as psychological objects. And besides, what would warrant our psychological research itself, if we do not set the rules for an exact research? There is here, obviously, a vicious circle resulting from the confusion between the physical and the logical.

-77- to objects and their exact understanding, which are quite independent of and different from purely physical or psychological Laws. If the thought in its function was determined only by the Laws of logic, there would never be falsity in knowledge. On the contrary, if the thought was subject only to the physical Laws of association of ideas, the truth of knowledge would only be mere chance, and we would have no way to see with certainty. As already observed, we could never, without a logical Law, be aware of the distinction between true ideas and false ideas. It is only because the thought is influenced by two kinds of Laws, that we sometimes deceive ourselves easily, but also manage to find a common thread to achieve the true.

The final criterion of a true understanding of things is that all ideas agree, both with each other, and with the testimony of the facts - especially facts of consciousness immediately certain. Outside of the true, there is no way to conceive things that is free of any logical contradiction, where the testimony of facts is perfectly concordant. And to arrive at the true Intuition of things, there is no other method than that stated above, namely to see exactly what is immediately certain, and taking it as our Principle, reach accurate and

perfectly obvious conclusions. If we strictly apply this method, we arrive at the result that the evidence of facts does not contain any contradiction. It is on this very Principle that I would like to see my theory about the nature of things appreciated and judged. If anyone proves to me that there is only one logical contradiction, either with the direct testimony of the facts or with the conclusions drawn from those facts, I would agree that it has been refuted.



Chapter 4

Knowledge of an external world

§ 1. Brief review of theories

-78- In chapter 1, I gave the reason I regard as necessary to place here the research on the origin of our knowledge of the world of bodies. So, I shall put myself to work immediately.

On the external world itself and the knowledge we have of it there are a host of different and contradictory theories. Hamilton explained most of them and Stuart Mill reviewed them again in the 10th chapter of his *Examination of the Philosophy of Hamilton*. I will give here a brief summary of their presentation; as it serves to show the status and difficulties of the research on this topic.

The biggest opposition, and the most fundamental one, is between the thinkers who admit the existence of a *substratum* of reality different from and independent of the given data, "a thing in itself" or "*noumenon*", following the expression of Kant, and those who argue that there is nothing real outside of our sensations and thoughts of the subject; nothing, at least, that has any connection whatsoever with us and which we can consider. Hamilton called the first *Realists* or *Substantialists* and the others *Nihilists*, but no one really knows by what right; because, the reality that they all recognize as the only one that exists can never, however, be taken for nothing. Yet here we see the confusion between a real object and a substance.

Realists' doctrines have many divisions and subdivisions. The first difference is between thinkers

-79- who admit only one substratum of reality, and those who admit the existence of a dual substratum. The former Hamilton calls *Unitarians* or *Monists*, the latter *Dualists* (1).

The doctrine of the Unitarians or Monists in turn comprises three subdivisions: 1. Those who look at the *self* as the only real substance and derive from the self the *non-self* (that is to say, the external things). This is the doctrine that Hamilton calls *Idealism*, 2. Those who, instead, see the non-self (the outside world) as the only existing, and the self as derived from the non-self. This is *Materialism*. Lastly, 3. Those who do not believe in an opposition between self and non-self, but consider both as "phenomenal changes" of a single substance:

it is the doctrine of *Absolute Identity*, adopted by Schelling [Friedrich Wilhelm Schelling (1775-1854),] Hegel [Georg Wilhelm Friedrich Hegel (1770-1831),] and Cousin [Victor Cousin (1792-1867).]

The *Dualists* are themselves divided between those that look at the knowledge of the self and the outside world, as well as their distinction, as by intuition and subject to immediate perception, and those who give as immediate the knowledge of that which is in the subject itself. Hamilton called the first *natural Dualists*, and shared their view, not without falling in many a contradiction. He called the others *hypothetical Dualists* or *cosmothetic Idealists*.

(1) It is assumed here that the concept of *substance* (for example, body substance) is identical to that "thing in itself" or *noumenon*. In fact, there are only a few people who support this view; for most, the two concepts of substance and "thing in itself" seem to differ completely, although no one is able to say what that difference is. Some thinkers are not content with this difference; for them, the "thing in itself" also differs from "the Absolute." As there is here actually but one concept, we can easily figure out the amount of misunderstanding that arises from these distinctions, when we add to it the confusion between a substance and a real object in general.

-80- The latter are further subdivided according to the way they explain the production of this mediate knowledge of the outside world. Some of the Ancients, for example, believed that the images detach themselves from the objects and floating here and there come to the subject, who, through them, know the objects.

Among the modern, Reid and Brown believed that with the contents of perception there was a related primitive Law, innate to the mind, to believe in the existence of an external object as the cause of perception. They believed, therefore, that there is meaning in signs, or "natural" marks, that if, for example, I take a ball in hand, the sensations of polished, hardness etc., suggest to me immediately, under an innate Law, the existence of a round, hard, object outside of my self, though these sensations may have no resemblance to the qualities of external objects themselves. Not very different from this view is that of Schopenhauer [Arthur Schopenhauer (1788-1860),] according to which an *a priori* concept produces a causal knowledge of external things, as causes of our sensations; only Schopenhauer did not believe in the real existence of these things. Finally, some believe that there is no innate Law of this kind, no innate belief, but we can

come to a conclusion in an empirical manner, that is to say through induction, from internal data sensations to an accurate knowledge of the outside world. In the next chapter, I will submit to a most important evaluation some of these theories; I will first explain the Principles of a true doctrine of the perception of bodies.

To avoid misunderstandings and have a clear view of the matter, it is necessary first of all to distinguish the real state of the case, what is immediately given and certain, from all that is alien and superimposed, and for that to ensure we do not confuse any kind of explanation of a fact with the fact itself.

-81- In this sense, with regard to the theory of our knowledge of the world of bodies, the following facts are essential:

1. What we know as bodies is in reality nothing other than our own *sensations* of sight, hearing, smell, taste, muscular sense, etc.
2. These bodies are, in their concept, substances, unconditioned beings.
3. A non-self is not synonymous of an external world.

Without the recognition of these three facts, a true theory of our knowledge of the world bodies is as impossible as a Geometry devoid of exact definitions. We must, therefore, examine them with great care, although this review is but an introduction to further research.

§ 2. What we know as the bodies is nothing other than our own sensations.

This fact, which is at the bottom of Berkeley's idealism [George Berkeley (1685-1753),] was not scientifically established until now, and was consequently misunderstood or misinterpreted most of the time. But, if you closely observe, it is impossible that it be in doubt, as can be demonstrated experimentally and in two ways, as I shall show.

Dreams, hallucinations, illusions of the senses, in general, provide the first experimental evidence.

In dreams and hallucinations, we perceive that the bodies obviously do not exist outside of us with the same sharpness, the same conviction, as when we are awake and in our normal state. This clearly shows that what we take for the bodies is nothing other than our own sensations. To make it clear, I take the simplest case of an illusion of the senses.

When I do not fix my gaze strongly enough on an object that is near me, I see a double. What does that

-82- mean? This obviously means that what I see as something in space is not a real object (particular) outside of me, but simply my own visual impression (which is double). Similarly, when I touch with two fingers crossed *one* little ball, I feel *two* balls. Again, it is clear that what I see as two balls is my dual feeling of touch. "For the illusions of the senses," one could perhaps say, "this is indeed the case, but we correct them with our other experiences." But, what makes up all our experiences, even those by which we redress the errors of sense, if not the same elements which these illusions are made of, that is to say our sense impressions? The two cases cited prove it with evidence. In both cases, perceptions are accurate and normal, and only *doubled*. This doubling does not change the nature and content of perception, but it shows clearly that the content of normal and accurate perceptions is the same as hallucinations and illusions of the senses. The difference between one and the other is not in the content of the perception, which is formed on either side by sensations, but in the order in which the sensations occur. In the normal state, during the day, all our sensations are linked together according to certain Laws, not only in the present and in relation to a particular subject, but also with past sensations and in all subjects so they appear the same way for all the senses, all the subjects, and all times as world bodies in space. This connection, quite regular in the content of sensations, is missing in dreams and hallucinations, and that is where one can distinguish between normal and accurate perceptions. How, indeed, do we know that a perception is true or false?

We look for what appears to make sense as a body,

-83- seems to be one for our other senses too, and if that is not enough, we ask those who are placed in the same circumstances as we are if they have the same perceptions, and finally we make sure that our current perceptions are consistent with our past experience according to physical Laws.

So, although there is a real and essential difference between hallucinations and illusions of the senses, on the one hand, and normal accurate, perceptions, on the other hand, what we perceive as a body is, however, the same in both cases, that is to say, our own sense impressions, our own sensations. It is an undoubted fact, whatever

may be our explanations. But, the experimental evidence we have given is not the only one; there is another which is physiological.

Physiology teaches us that all perception is first produced in the brain, and connects with external objects, that is to say, here, placed outside the body by a number of intermediaries. For example, when we look at an object, its *inverted* image is produced on the retina. But, this image does not exist for ourselves, it exists only for the physician who can look at the retina from outside using a device. The surface of the retina on which this occurs is connected with our perception by the optic nerve, and is also separated from it by the length of the nerve. That which reaches up to our perception is neither an object outside, nor its image, nor any other direct action on its part. It is only the affections of the optic nerve itself which are essentially specific. But, what those conditions are, what happens in the nerve when excited by the light beam, we know nothing about, and if we can get somewhere, it will be outside and not by introspection. For we can say with confidence that if ever a man could

-84- perceive the internal affections of his own nerves and brain he would be endowed with supernatural penetration, like that which is attributed to sleepwalkers and mediums of spiritualism, but this cannot be scientifically examined.

Now, let us look at the very facts of perception. We discover the following: We immediately see objects outside our body and we see nothing more.

My inkwell is before my eyes. From it, so they say, emanate light waves, vibrations of ether, by millions every second; these vibrations fuse through the transparent cornea, the lens, the liquid of my eye to the retina, excite the surface of the optic nerve and thereby impress the molecules thereof with a movement, a vibration of sort, through which occurs our perception. Very good; but as regards the object I find no trace of it at all; I only see the inkwell and nothing more. We ask a child, a farmer, a person of the people, if they know something of the light waves, images of the retina, molecular movements of the optic nerve and the brain; they know absolutely nothing, but they see the bodies themselves as well or better than the physiologist. It is, therefore, clear that what we see as a body is only our own visual impressions.

What we showed for the sense of sight, can be applied in the same manner for the sense of touch. Here is, on this subject, an experience. We swipe in different directions the tip of the tongue over the surface of the palate. Thus, a clear picture will emerge of the entire configuration of this surface, absolutely as if it were seen with the eyes, regardless of the color. We feel its resistance, the polish, all the little inequalities, such as large protrusions and recesses; in a word, it is perceived immediately. Where does

-85- this perception originate? Obviously from our own impressions of touch provided by the tongue, not only because, in fact, there is nothing more there, but because there cannot be anything more, as shown by the simple reflection that follows.

The organ of perception of the palate, which allows to explore it, is the tongue. The action of the palate on my consciousness must, to get there, take the road through the tongue. And in effect, while I do not touch my mouth with my tongue, I do not perceive it. Now the question is whether we perceive anything of what happens in the tongue? Obviously not. Not only is it impossible to perceive or feel the molecular movements produced in the nerves that cross the tongue and all its special movements of perception, but we still see that by the contact of the tongue with other objects we do not become aware of the tongue itself, yet it lets us immediately know either the palate or the jaws, the teeth and whatever it can touch in the oral cavity. We can compare the tip of the tongue to these clear lenses that are themselves invisible and make other items plain. It is still evident, as we have shown in the case of sight that our perception of these objects can contain nothing but our sensations of touch and movement.

When we ask a physiologist why the tongue is particularly suitable for the perception of other objects, he answers: Because it is very flexible, mobile, and its tip is provided with an infinite number of papillae and tactile nerves.

But, as we immediately know nothing of the tongue itself and its features by perceiving other objects, we must first *translate* in psychological terms this physiological explanation and give it its true meaning. The mobility of the tongue and its rich tactile nerves mean,

-86- psychologically speaking, an abundance of sensations of touch and movement, which makes possible a more delicate differentiation and combination of these sensations. Also these sensations are more

likely than others to be represented as objects in space, to be as it were translated into the language of the world bodies, as I shall show in the chapter of Part Two that deals with perception.

We will now present, in more general terms, the evidence we have given only in particular form. For that, we must contrast the facts of perception and the doctrines of Physiology.

Physiology teaches that all perception is through the sense organs and each organ of sense is only capable of a specific excitation, that is to say, peculiar to it, which is always the same, however different be the objects which act on the organ. The optical sense, for example, provides only light or color sensations, be it pinched or hit, affected by light waves or electricity. The acoustic nerve, similarly, gives only acoustic sensations whenever it is excited, and so of others. Most diverse stimuli acting on the same sense organ always give the same impressions, and, conversely, the same excitement, for example, electricity, acting on different organs, produces different impressions, that is those specific to each sense organ. Physiology thus recognizes that our feelings are actually *separated* from external things, they are totally different, and they are entirely incommensurable with them.

The facts of perception prove, on the contrary, that we immediately perceive external objects, that we see and touch the bodies of our experience, that we

-87- feel them and taste them, that we are in direct contact with them, and we know nothing of the circumstances that make possible this perception. It follows, with evidence, that what we know as the body, or bodies, is nothing other than our own sensations.

Should a *Realist* now consider this fact irreconcilable with his views and protest against the evidence, I will offer him the following comments: The fact that we have just seen remains, be there or not something outside of us. The question of the existence of things outside of us, we did not have to raise in this research. Because, for the theory of knowledge, it is absolutely irrelevant that our sensations be produced by a plurality of external things, or anyhow else, once we discover the fact that our sensations themselves are what we know as the bodies, because the reasons or external causes have nothing to do with what is purely internal. If real things exist outside of us, they are themselves quite different bodies than we see and touch, or we actually know. The actual external things cannot come within range of our

experience, nor serve to explain the facts themselves. The question then arises if such things are the cause of our sensations, but it is a metaphysical question, without interest for the theory of knowledge or Science. We can, therefore, when we come to this stage of our research and understanding of real relations, stick to the solid domain of facts and not deprive ourselves of the pure results of the study because of expectations of metaphysical conclusions.

Otherwise, we would risk being wrong quite lightheartedly (1).

(1) There are certainly people who won't be convinced that we know sensations as our own body, and who will not be persuaded by the experimental evidence that I gave. These readers, I must say it clearly, are absolutely incapable to follow, with some profit, the explanations that I give in this book, and they would do well not to read any further.

§ 3. The bodies are, conceptually, unconditioned.

-88- This fact is of utmost importance for the theory of knowledge, and it is mainly for having disregarded it that we are exposed to the most serious confusion in the realm of this theory.

I fully explain in Book Two, following, the concept of the unconditioned; it suffices here to note what I mean by unconditioned object, namely one which depends for its being and its essence on no other, and is internally connected to none else. Now, conceptually, the body is unconditional in that sense.

But, as we are completely mistaken on this point regarding reality, we do not scruple to admit a triple dependence of bodies, namely: 1. their dependence on a cause in the external world, or 2. Their dependence on the knowing subject, or 3. Their dependence on each other. I will show that all these assumptions are contradictory to the idea of body.

The first of these assumptions is found only among Theologians or, more generally, among people who think like Theologians. For, those who are not embarrassed by theological assumptions, it is now recognized that in the concept of the material world there is no sign of origin derived. The scholastic argument that concludes with the alleged contingency of bodily things to a cause is unsustainable. For, there is not, as Kant has rightly noted, any other sign of the contingency of a thing but its non-being found before it is, and in no

experience or speculation, can we find any reason that allows us to conclude that nothingness would have preceded the material world.

But we do not need

-89- to enter the field of metaphysical speculation to clarify this.

Once granted that what we know as bodies is only our sensations, it immediately follows that we conceive the given objects as *unconditioned*. When, for example, I see my own sensation of color as a quality of a thing in space, I attribute to it then, in thought, a support, a substance, which gives it an independent existence. What would it mean to ascribe to this thought of support, yet another support as foundation or motivation? This would be the equivalent to Hindu cosmology, in which the land is supported by an elephant, itself supported by a turtle, which itself is supported by who knows what. Just as it seemed difficult to the Ancients to understand that a celestial body can maintain itself in space without support, because of the fixed idea attached to objects falling to earth if not sustained, many today have difficulty understanding that a body generally does not need, for its idea, another support for its existence. It is a series of very old associations of ideas. But, do as much metaphysical reasoning as you wish, the fact remains that our experience of the bodies and also the concept of bodies involved in this experimental knowledge, present nothing resembling support or cause of bodies, and that is what we must acknowledge.

Secondly, that the body as to its concept is also independent of the knowing subject, seems obvious to even those who do not think, even more so to those who do. He who does not think is absolutely convinced that a body to exist need not be seen or perceived in any way by a man or an animal.

Ask a farmer if his field exists when there is no man or beast, and he will take you for a fool; because, he does not believe that a healthy mind can doubt it. The

-90- earth, the innumerable multitude of stars, the mere thought of which reminds men of their smallness and nullity, no one doubts they are naturally independent of any knowing subjects, and have existed in space from time immemorial before a living and knowing being started to breathe in this world. There are, however, some Philosophers who with varying degrees of clarity understand that what we know as bodies is nothing but our own sensations. But, these

Philosophers must not forget that the concept of body and its contents are two different things. The material, in fact, the given content we know as a world of bodies, does not exist at all independent of perceiving subjects; it simply consists of their own sensations; but, as we know it as a world of bodies, we precisely know it as something independent of any perception, any experience, of a living subject. This independence of existence resides in the idea of body. As long as we do not see this, the common consciousness and the philosophical consciousness cannot agree, and it is impossible to explain the former by the latter.

We still have to show that the bodies, as to their idea, are independent from one another. The expression and guarantee of this independence is the space between the bodies. Experience shows us, it is true, things in space as related to each other by the same Laws; but this link is so far from belonging to their essence and their concept that it seems rather to directly contradict it. The very feeling of this contradiction has led many thinkers of the past to stubbornly refuse to admit any *actio in distans*. Today, when experience has familiarized us with this action, as

-91- Lange [Friedrich Albert Lange (1828-1875)] notes in his *History of Materialism* (1st ed. p. 360), we need a "special reflection to sense the absurdity of the assumption that the earth changes its motion when another heavenly body changes place in space, without a material link between the two bodies to produce this reaction. "

And in fact, that which is separated by space is completely separated. The existence of a thing in a place in space does not imply the existence of another thing in another place. We may well remove in thought all the other things and see the object before us as the only existent. This assumption obviously contains no contradiction or impossibility. No one will say that the cohesion and the gravitation of body atoms are necessary for their existence. If they were deleted, one body atom could move away enough from all others to have no relation with them, and then it would be clear that the existence or non-existence of these others is absolutely indifferent.

I will give in Part Two, about the scientific theories of the bodies, a decisive proof that an internal connection between the bodies is inconceivable (1).

It is thus beyond doubt that the bodies are unconditioned in their concept, and that, therefore, we attribute to an object we know as a body an unconditioned existence, an unconditioned reality. The real objects of perception of the bodies are, as we have proven, our own sense impressions, and the recognition of sensitive impressions, or their compounds as bodies, proves that we know them as unconditioned, as substances. One should not believe, because our theories on the nature of the bodies are thoughtful and philosophical, different and subject to

(1) Please note the exact location of the passages where I refer to the evidence that I shall later give to make sure that there is no gap in the demonstration.

-92- change, that the idea of body itself, as it is involved in perception, may be different or change. This idea is independent of our diverse and varying opinions, as any external object is (1).

§ 4. A non-self is not synonymous with an external world.

We are used from the beginning of our life to look at our sensations of color, sound, smell, etc., as a world of external objects. As a result of this association between our sensations and ideas of an outside world, we tend to believe that whatever is foreign to us, whatever does not belong to our own being, is subjective, individual, in our self, is an external object, or is directly connected with such objects. For, our usual life and knowledge, in our daily experience, this belief is not absolutely misleading, because it is in harmony with their Laws and conditions. But, for the theory of knowledge, it is essential to show exactly what it is all about, what is given in its purity, without any admixture of associations and explanations.

The bare fact is simply that in our sensations of color, sound, smell, taste, touch, our muscular sensations, etc., as long as they are not accompanied by pleasure or pain, we do not experience anything from our qualities or internal states belonging to our personality, but recognize a world of external objects different from ourselves. This proves, in fact, that these sensations are foreign

(1) We will unveil for the first time the special meaning of this fact, so surprising in appearance, that in the content of our sensory impressions we know a world of substances (bodies), when we understand the exact meaning of the concept of

substance or unconditioned, and that this is the fundamental Law of our thought. The explanation of this concept itself is in Book Two of Part One, and the demonstration of how it affects our perception of the bodies is in a chapter of Part Two.

-93- to our subjective being, do not belong to our self, and must consequently be regarded as a true non-self. One can argue whether these sensations originate or not in real external objects; but this argument is the domain of Metaphysics and has no impact on the finding that the sensations which we take as content of an external world, are foreign to our subjective essence. Supposing that our sensations are produced, as is commonly believed, by external things, those things are not the body we experience because they, as we have proved, are simply our sensations. So, these are things that are out of our experience, and, therefore, do not alter the facts. To treat of the existence and relations of such things is in the realm of Metaphysics, not the doctrine of knowledge. Assuming, however, that the sensations of color, sound, etc., in which we know the external world, come, as some Philosophers affirm, from the very core, the essence of the self, this self is not the ego of our experience, it is not the *complexus* of the given phenomena we understand and affirm of ourselves, of our own self. Regarding our empirical self, it is undisputed that it is neither sound nor color, neither hard nor soft nor sweet nor sour; finally, that the contents of all the objective sensations are foreign to it, although they do not have any appearance without individual knowing subjects. Whether our self, outside of experience, has or not a common origin with the content of these sensations, is, again, a matter of Metaphysics, not of the theory of knowledge. The latter's task is to verify the fact, without bothering any metaphysical assumption, that the content of sensations is foreign to our self, a fact actually proven in that we cannot recognize ourselves in this content.

-94- Rather, the doctrine of knowledge must resolve the question of whether we know the content of our sensations as something foreign to us, from the outset, or if in the course of our experience we learn to distinguish it from our own individuality, our self? I will try to resolve this issue in a separate chapter of Part Two; I will simply point out here that this distinction must have been made perfectly, of necessity, from the beginning, because no experience can make us distinguish what is our own and what is foreign to us. If, from the beginning, we had known sensations the same way we know feelings of pleasure and pain, as our own states; if we had felt ourselves, from the beginning,

colorful or sonorous, hot or cold, sweet or sour, in the same way that we feel sad or happy, it would have been absolutely impossible to find in our experience any reason that would allow us to distinguish us from our sensations and know them as an external world. They would have simply appeared as an essential part of our self.

First we will take for granted that:

1. A non-self is not synonymous with an external object. We rather found it to be a fact that in ourselves there is a content that is foreign to our subjective being, to our self, that represents a real non-self, without us having to say it came to us from outside. If the self, the knower, was something that existed from all eternity, it would probably be hard to understand how something foreign to it can be within but not coming from without. But, our self, as we know, had a beginning; it may very well be that something foreign was able to mingle with its being for any

-95- reason and remain united to it all its life, to perhaps become a necessary condition of its existence and assume no cause, however, no external reason for this. In all cases, it is not, as we have shown, the task of the doctrine of knowledge to discover the first instance of where and how this content foreign to us is within us.

2. Such non-self is the content of all the sensations we have through the senses of sight, hearing, taste, etc., and we cannot find anything of ourselves in it. Also, we call them objective sensations, as opposed to feelings of pleasure and pain that are purely subjective in themselves.

3. The subject must have the innate ability to distinguish or the disposition to distinguish what is its own and what is foreign to him, because this distinction can never come from experience.

These are, I think, the clear Principles of a rational, accurate, theory of the knowledge of bodies and we can move now to a review of some theories that were proposed previously; and thus we shall discover the Law of thought that is at the bottom of the knowledge of bodies.

Chapter 5

Review of various theories

§ 1. Theories according to which a true knowledge of bodies is possible with only the data of experience.

Let us talk about these thinkers that Hamilton called *natural Dualists*. These thinkers believed they could admit

-96- that we immediately perceive external objects themselves. It is obviously not necessary to dwell long on this theory, because it is clearly in conflict with the most certain and best accredited doctrines of Physiology. Real, external objects could not be immediately perceived by us, because there are, between external objects and our perception, the sense organs and the content of our perception is, in the first place, conditioned by the nature and function of the sense organs and not by the way of being of external things that affect them.

Natural Dualists begin without doubt from this indisputable fact that the bodies of experience are perceived by us immediately. But, the bodies of our experience obviously consist only of our sensations, as we have given experimental evidence above.

The belief that one can actually perceive the real external objects is too naive for our time; we are quite willing today to show that knowledge of the bodies can be achieved by induction starting from the data of experience, that is to say from sensations.

Induction, as I have already indicated, is a reasoning of like to like. Basically, any induction which is founded on an empirical basis, is, as shown by a master in these matters, John Stuart Mill, induction *per enumerationem simplicem*, that is to say as the result of the constant production of similar cases in experience. For, the general Law of causality which forms the basis of rigorous, scientific, methods of induction, could, if it were purely empirical, be recognized in any other way. It is, therefore, clear that induction starting from sensations can never reach things or external causes that are not themselves sensations. The only function of induction is rather to discover which, among the given phenomena, are those

-97- that are with each other in relation of cause and effect, that is to say, in other words, that induction may well lead to know the Laws of phenomena, but not the causes and things that are not themselves

phenomena and, therefore, are not subject to the Laws governing the world of phenomena. Induction gives us no right even to assume the possibility of such things and causes. However, as external things are never really given us immediately, there is no purely inductive method that allows us to find a causal relationship between what happens in us and any external thing.

Hume, with his penetration, understood this very well: "One wonders, he said, if the sense perceptions are produced by external objects that resemble them. How to solve this? Obviously by experience, as all matters of this kind. But, here the experience is and must be silent. There never were more than perceptions present in mind and it is impossible for the mind to grasp by experience their connection with objects. The assumption of such a link has, therefore, in itself no rational basis." (*Philosophical Essays*) Kant also said very accurately: "If we look at external objects as things in themselves, it is absolutely impossible to understand how we can come to a knowledge of their reality outside ourselves by relying only on the ideas in us." (*Crit. of Pure R.*, p. 703).

To have a clearer on this point, we must first ask the question: What external things do we properly talk about, when we want to explain the knowledge of external things? Do we talk of unknown things, different from the bodies of our our experience and simply assumed? But, we obviously have no knowledge of such things, and it is naturally not necessary

-98- to explain a knowledge that does not exist. Do we mean by external things bodies of our experience? But, knowledge of these bodies could not be acquired by induction, since it is an immediate perception. Our sensations are not, as we are used to believe, mere signs of external objects but these external objects themselves.

We see, touch, hear, smell and taste, not mere signs, but objects, bodies; the world bodies are present to us, not in an abstract thought, but in intuition itself. No doubt much of our knowledge of the bodies is obtained by reasoning, but that reasoning is based ultimately on immediate perceptions of bodies. If we did not immediately perceive the bodies themselves, we could not think about them, because the reasoning cannot make something from nothing. One cannot, therefore, claim that our knowledge of bodies is due primitively to an induction.

§ 2. Theory according to which the knowledge of bodies would be acquired through an *a priori* concept of causality.

The theory that knowledge of the bodies results from our sensations through an *a priori* concept of causality found two illustrious supporters, Schopenhauer and Helmholtz, who differ in that Schopenhauer did not believe in the existence of bodies outside of us, while Helmholtz so believed. It should be noted that the Scientist shows here more logic than the Philosopher: how to understand how we can obtain knowledge by reasoning of things that do not exist?

The theory in question, common to Schopenhauer and Helmholtz, contradicts both the true sense of the Principle of causality as the facts of knowledge. The Principle of causality, whether empirical or of an *a priori* origin, is

-99- that a change cannot occur without another change having occurred before, which it follows according to an immutable Law. Based on this Principle, we will simply go from a change to another as the cause of the first, but we never come to a thing or an object that, by nature, differs from every single change. I know we are used to think of an object rather than of a change, when talking about a cause, but this view is completely unacceptable as I shall show with details in Book Three of this Part One.

But, admitting that one can conceive the cause of a phenomenon as a lasting object and, assuming further that we have an *a priori* certainty that our sensations are produced by objects external to us and different from us, however, we could not even with all this, draw any kind of knowledge of external causes (or the external cause, because we would not know if there is a cause or if there are many.) Indeed, even the one who admits an *a priori* certainty of the general Law of causality, however, does not admit that we also know *a priori* the particular Laws of causality, the relations of special causes with their effects. It is only through experience that we can know the relationship of particular causes and effects. It is, therefore, obviously necessary that both causes as well as effects be given in our experience. For, only from their constant succession can we infer their causal link. But, according to the hypothesis, we are not given the external causes of our sensations in the experience, we only know their effects. It is clear that we cannot have any experience of these external causes. Because - as Hume has well shown - however well we can

-100- observe and scrutinize a given effect, we can never *a priori* make out the cause by which it was produced.

On the other hand, everybody can see how the assumption in question contradicts the facts of perception. The bodies which are outside of us, are given in the experience and we know them by experience. We know their form, their situation and their mutual relations in space. This knowledge is not the result of reasoning; it is an immediate perception. For, it is a fact already established above, that we perceive our sensations as bodies outside of us. The appearance of their externality is pure appearance. That Helmholtz allowed himself to be blinded by this appearance, we are surprised when we see how he has approached this point of truth. Here is, indeed, how he talks about the value and meaning of the knowledge of the bodies:

"I think it is impossible to speak intelligibly of another truth of our ideas but as a practical truth. Because, our ideas of things cannot be but symbols, signs naturally given to things that we learn to use to adjust our movements and actions.

When we have learned to exactly read these symbols, we are able with their help to combine our actions so that they have the desired effect, that is to say new expected sensations occur. Not only is there actually no other relationship between ideas and things - all schools are agreed on that - but none is conceivable, or makes sense [....] To ask if the idea I have of a table, its form, its strength, color, etc., is true in itself, apart from the practical use I can make of this idea and if it agrees with the real things, or if it is false and based on an illusion, is just as much understandable as to

-101- ask if a sound is red, yellow or blue. The idea and what it represents obviously belong to two entirely different worlds, it is also difficult to compare colors with sounds, or the characters of a book with the sound of words they designate." (*Opt. Phys.* 1867, p. 3.)

We cannot express with more penetration and more decision than Helmholtz did, here, this view that we never have to deal, in our experience, with real external things, but only with our own perceptions and sensations. Yet, Helmholtz believes in the real existence of bodies represented; our ideas are for him "symbols, naturally given signs for things." How does he know, since by his own admission he knows nothing of real things and even declares impossible a knowledge of these things? Obviously, Helmholtz was

deceived, here, by the sensible appearance already mentioned, and could not, therefore, distinguish between the fact that our perceptions are occurring in us and combine with each other according to Laws whose interpretation suggests the idea of a world of things in space, and the metaphysical *explanation* of this fact by the assumption of real things external to us, that take the place of perceptions and virtually support perceived facts. But, the perceived facts are within us; so they do not need support and, to give a metaphysical explanation, assuming real things outside of us, can only distort the theory of knowledge by promoting the false opinion that we know by reasoning a body of our experience (1).

(1) Since I wrote the above, Helmholtz published a little book, *The facts in perception* (Berlin, 1879) – in which he shows he fully agrees in fact with Idealism, without admitting it explicitly.

§ 3. The alleged psychological theory of Stuart Mill.

-102- John Stuart Mill is one of the few thinkers who saw clearly that it is our own sensations we take for external bodies. But, among these thinkers, Mill is the only one that I know who has tried to deduce our knowledge of bodies only from our sensation data, without the aid of physiological observations, and rightly so, because the physiological observations presuppose knowledge of the world of the bodies and, consequently, cannot be used to explain their origin (1). Hence, Mill called his attempt "a psychological theory" of the knowledge of a world of bodies, and this theory is, therefore, of particular interest.

Mill postulates nothing more for his explanation than the capacity of consciousness to wait for the future and the well-known Laws of association: 1. Similar phenomena tend to be thought of together. 2. Phenomena that were perceived or conceived in close contiguity, have the same tendency. Facts that were perceived or thought of together recall each other. With facts that were perceived or thought of immediately one after the other, the first (antecedent) or the thought of the antecedent brings the thought of the consequent, but the reverse is not true. 3. Associations produced by contiguity become safer and quicker through repetition. (*Review of the Philosophy of Hamilton*, p. 212.)

So, Mill himself explains his ideas, p. 215 sq., of the same book. Here is how I summarize it: "I see a

(1) That is to say, the physiological observations can be used to know the bodies, but only from the point of view of Physiology, in a word, of experience, showing our sensations as a world of bodies. The theory of knowledge, however, cannot start from such observations as it has first to show how we come, in general, to know our sensations as a world of things outside of us.

-103- piece of white paper on a table; I go into another room. If the phenomenon still followed me, or, in the case of non-existence, I thought it had disappeared from nature, I would not take it to be an outside object. " - "But even though I stop seeing it, I am convinced that the paper is still there," that is to say that if I place myself in the same position, if I went in the room, I would see this paper again, "and there was not one moment it would not have been so. It is because of this property of my mind, in my view of the world at a given time, my sensations of the moment account for only a small part. "

It also includes "an infinite variety of possibilities of sensation, especially any that past observation tells me that I might, under certain conditions, we may suppose, feel right now."

"These various possibilities are all that matters to me. My present sensations are generally minor and fleeting, while the possibilities, however, are permanent, which is precisely the character that primarily distinguishes our idea of substance or matter of the concept of sensation. "

Furthermore, one recognizes that "possibilities of sensation relate to sensations that are united in groups". In a material substance or in a body, we do not believe in a sensation, but the possibility of many sensations, " which usually belong to different senses, but are chained together so that the presence of one announces the presence at the same time of another or of all together." The whole group seems so "as a possibility of sensations", which can be realized at any time, as opposed to the accidental nature of the sensations themselves, and we see it as a sort of "permanent *substratum*, hidden under a system

-104- of fleeting facts of experience or transient events."

"Besides the order of simultaneous sensations, we still know a constant order in succession, a succession of uniformity which causes the concept of causal relationship." But, in almost all cases, the binding of the antecedent and consequent are not meeting "between sensations, but between these groups that we talked about and which

are only a small portion of actual sensations." As a result, our idea of causality and activity is not associated with actual sensations, but with these groups of "possibilities of sensation." We see that changes in these are mostly quite independent of our consciousness, of our absence or our presence. "Whether we are asleep or awake, the fire goes out and ends a particular possibility of warmth and light. Whether we are present or absent, the grain matures and gives birth to a new possibility of food. By this, we quickly learn to conceive of nature as a system composed of these groups of possibilities." - "Once in this state of mind, we have no awareness of this sensation without instantly relating it to one of the groups of possibilities to which a sensation of a particular species belongs; and even when we do not know to which group we should relate it, we experience the irresistible conviction that it must belong to one group or another." - "Having reached this point, permanent opportunities have taken a different aspect of sensations and contracted with us an apparent relationship so different from theirs, it would be contrary to everything we know of the constitution of human nature not to conceive and believe they are at least as different from sensations than one sensation is different from another." We also find that these opportunities of sensations belong as well

-105- to other men, other sentient beings, as ourselves. "Anything that indicates a present possibility of sensations for us, indicates a possibility of similar sensations to other people, unless their sense organs deviate from our kind. This character definitely makes us conceive the possibilities of groups like the fundamental reality in nature." - "The world of possible sensations succeeding one another, according to Laws, occur as much in other beings as in me; it, therefore, has an existence outside of me: it is an external world."

But, Stuart Mill was not quite satisfied with this explanation of externality, and a few pages later (p. 222), he proposes another solution, of which I also summarize the key points.

"It is an accepted fact that we can have all the conceptions that can be formed by generalizing the Laws the observation of our sensations reveal. Having found a relationship between our sensations and something different from them, we do not have difficulty conceiving the same relationship between the sum of all our sensations and something different from them." The differences that our consciousness perceives between one sensation and another gives us

the notion of difference in general and "this habit to conceive something different from each of the things we know, leads us easily and naturally to the notion of something different from everything we know, collectively as well as individually, and nothing is more likely than that the permanent possibilities of sensation, which are evidenced by our consciousness, are confused in our thinking with this imaginary conception" of a thing different from all sensations.

This will be even more certain when we consider the general Law

-106- from our experience, which we call the Law of causality. "Causality gives us a most remarkable example of the extension to the whole of our consciousness of a concept drawn from one of its parts." "By extending to the sum of all our experiences the internal relationships presented by its various parts, we finally consider the same sensation - the total aggregate of all our sensations - as having its origin in antecedent existences that sensation does not reach." This is a consequence of the fact that the constant antecedent of a sensation is seldom another sensation or a series of sensations, but usually there is a group of possibilities. As a result, our idea of cause is identified with these permanent possibilities, and "this is one and the same way we acquire the habit of looking at a sensation in general, as every sensation in particular, as an effect and also to conceive, as the cause of most of our particular sensations, not other sensations, but the general possibilities of sensation. If all these considerations together do not fully explain why we conceive these opportunities as independent and substantial entities, I do not know what psychological analysis could have a decisive value. "

The history of our knowledge of the external world, according to Stuart Mill, would, therefore, be summarized as follows: 1. We know groups of, or possible simultaneous sensations of related compounds, and also determined uniformities in the succession of sensations, that is to say, causal Laws; 2. This forms the abstract consciousness that all sensations must belong to a group of possible sensations and, at the same time, the awareness of the general Law of causality that all that is born must have an invariable antecedent, or cause, and thus the thought of a cause in general is associated with these groups; 3. This forms the abstract consciousness of something

-107- which is different from all the sensations in general and as, in the meantime, it was found that the permanent groups of sensations are common to all men, 4. This something is confused with known groups,

a similar something being taken as substance of each group and then, as a result of the association with the thought of that something, 5. Sensations themselves, projected outside, made foreign to ourselves, are known as a non-self and as something objective in front of us.

Hence, our belief that the earth that carries us and the multitude of stars and planets in the infinite celestial spaces are independent of us, all experience a knowing subject has is only the consequence of an erroneous generalization, a product of an association of ideas that reason has not controlled. We are forced to smile at this theory, as it disregards the fact it intends to explain. And it is not difficult to show that this explanation tacitly assumes first what it claims to find last, in a word, it rests basically on a magician's trick.

It is accepted and it is affirmed that the objective sensations (colors, sounds, etc.) are true and similar to the subject's inner feelings of pleasure and pain. The latter will differ from the former solely because we have "great interest in realizing it." Mill expressly says: "It is very likely that we have no notion of the non-self as we have not experienced for a long time the return of sensations according to fixed Laws and in the form of groups." But, at the same time, all these sensations are taken as if their groups were something special, separate from the subject, with a stability which is not that of the self, and changes that are not

-108- changes in the subject, but occur independently of him or her.

Once this idea of the groups has become fixed, it will be easily confused with objects, obviously. But, the essential point is that I cannot have any awareness of any "groups" of my sensations, if I just take these for internal determinations and changes in myself. I cannot have but a tendency, when a sensation occurs, to expect the production of other sensations. To look at this tendency itself as a Law or as a compound of sensations, I have obviously to already objectify it, to position it in front of me as something special, something that cannot occur by mere association – this association only determines the tendency - but only with a reflection on this association. Mill obviously lends his own philosophical point of view to the consciousness of the child which would thus have the task of knowing the objects.

What neither Mill nor any other thinker seems to have noticed or considered, is the extremely important fact that our knowledge of

sensations as a world of things outside of us supposes that to this knowledge answers a natural arrangement of sensations.

We could not know our sensations as a world of things in space if they did not occur in us and combine together according to Laws always fully conformed to this knowledge or this manner of conceiving. What Mill called "possibilities of sensation" presents a regularity that leads us not fortuitously to confuse these "opportunities" with external objects; This confusion is, instead, absolutely regular and constant. It is only through this natural disposition of sensations that we take their groups or

-109- their possibilities for external objects, without encountering a single case that is inconsistent with this way of knowing. Even in the smallest and most insignificant details, the order of our sensations is so arranged that we see, we touch in them, hear, smell and taste external objects, which are the same for all knowing subjects and whose physical and chemical Laws have a basis and a reality that does not depend on the experience of any subject. In short, our experience has provided a systematically organized *deception*.

A particular example will make the thing clearer, and for this example to be as simple as possible, we shall confine ourselves to the sense of sight.

We know that a single object can appear to view under very different lights, in varying positions and at very different distances. Visual impressions can be very different at any time, but we recognize in them, though, one identical external object. On the wall of my room hangs a painting. If I walk two steps closer to it, it seems larger to me; If I step aside farther from it, it appears to me in another form. I have thus three different impressions but the same external object in all three. Ordinary consciousness now believes the object seen is quite different and independent of my impressions. This belief, no doubt, as we have seen, is not accurate. What I see as an external object is always, in fact, my impression.

And that is why the object seen seems, according to the position and distance, greater or smaller, in this form or another. But, it is an indisputable fact that the visual impressions that come are naturally arranged so that, despite their diversity, I recognize in them, with perfect empirical truth, one single external object

-110- and that they constantly and necessarily allow me to unite them in the idea of a particular object.

The meaning of this empirical truth is easy to understand. Our sensations on one side, and our knowledge of these sensations on the other, as a world of bodies, do not logically agree - because the sensations are in reality neither the bodies nor the objects - but they form a *de facto agreement*, since the Laws of our experience are, in fact, so settled that we naturally perceive in our sensations a world of bodies. In this sense, therefore, the knowledge of the bodies is true and accurate, while with the hypotheses of Mill, it cannot, in any sense, have truth or accuracy.

The result we have arrived at thus far necessarily leads us to go a step further. What does it mean, in particular, that our sensations are arranged in so fairly regular a basis to be known to us as a world of bodies? (1) It obviously means that sensations are arranged under a Law of knowledge that cannot be deduced from sensations but is itself the supreme *Norm* of their empirical compliance with Laws. Such a Law of thought is as essential to the knowledge of the bodies as the natural disposition of the sensations that correspond to them. Precisely because this provision makes them knowable as a world of bodies, of real objects, it also causes, on the other hand, that we could not recognize in them any order or agreement, if we conceived them as mere inner states, not real objects outside ourselves. Regarded as mere inner states, objective sensations display a perfect chaos, which

(1) I do not ask this question to reach a metaphysical explanation of things, as to pretend to be an author knowledgeable of sensations or anything else. We must refrain from any hint of metaphysical explanation in these questions, and consider only hypotheses regarding the theory of knowledge of the fact in question.

-111- rearrange in a regular experience if we conceive them as objects, if one translates them, in some way, in the language of the world of bodies, for which they are arranged by nature. We will clarify this with a concrete example.

I am, at this moment, sitting in a chair, my elbows resting on a table. I thus have impressions of touch made by the objects that support my body. At the same time, I see through the window the blue sky, that is to say that I have some visual sensations. I also hear a door opening

and footsteps in the next room. And in the blue sky appear clouds of different shapes and colorings. I have thus a number of impressions, different, or simultaneous, or in rapid succession, which are not linked together by any causal link, or in any manner immediately. The impression of the chair is independent of the impression of the table, and both are unrelated to that of the blue sky, that itself does not prepare me to that produced by clouds appearing; and finally auditory sensations, which come from the door and steps, born at the same time as the others, but without any relation with them.

Now, suppose that all these objects and these facts perceived, the table and chair that carry me, the blue sky and clouds, the sound of the door and steps appear to me as what they really are, that is to say as pure inner states of mine, changes in myself, as my own sensations. I will obviously never be able to find in them any order, any connection, because in fact, considering them in this perspective, there is in them neither order nor connection. This would precisely be the case with every new being coming to life, if he were not led and compelled by nature to consider, from the beginning, his sensations as substantial objects. Such an inexperienced being,

-112- lacking any reflection, any preparation, would be even less able to achieve experience with some consistency, some connection. The association of ideas by which Mill wants to explain our experience, if acting alone and without this Law of thought, would rather serve to make absolutely inextricable the chaos of impressions. Because it is, as we saw in the third chapter, even for the experienced man, a source of error. But, we see that children and small animals always manage to infallibly interpret their sensory impressions as a world of external objects, in the perception of which they meet and match perfectly.

This makes it very clear that our knowledge of the bodies assumes two conditions, first a natural disposition of our sensations themselves that makes them to *seem* like a world of external objects; and, second, the original disposition of the subject to consider his sensations as things.

Of this interior disposition, of this Law of thought, we can already know something. We have already shown (p. 88) that the bodies are, as to their notion, substances, unconditioned beings. The Law of thought that is at the bottom of the body of knowledge, cannot be anything other than an inner disposition of the subject to conceive any object as a substance, as unconditioned. The sensations are thus also subject to this Law: they the subject distinguishes from himself, they he knows

as something foreign to him, as external substances, and this knowledge, though logically false, is empirically accurate and true, because the arrangement of the sensations is fully compliant with it. The origin of the knowledge of the bodies will be the subject of a special chapter of Part Two, where everything still dark here, will be made as plain as possible.

§4. Final remarks.

-113- Let us briefly summarize the results of our research so far.

We proved that knowledge of the bodies could not come from an induction or a reasoning on the causes of our sensations by means of an *a priori* Principle of causality, or, as Mill proposed, to a simple association of ideas.

We found, moreover, that in the body of our experience, we do not know anything other than our own sensations and that the bodies, as concept, are substances, that is to say unconditioned. For all this, we have no doubt that our knowledge of the bodies has as its foundation a primitive Law not derived from experience, and that this Law cannot be anything other than a concept of the unconditioned, an interior disposition of the subject to consider each object in itself as unconditioned or as a substance. But, this result is an introduction or preparation to the theories expounded in Book Two. For, though the Law of thought in question also receives from different facts the proof of its objective value, however, the fact that this Law serves as Principle of our knowledge of bodies is a stronger subjective evidence, that is to say a decisive proof of its very reality.

But, at the same time, previous research has provided us with a result of a pedagogical value, a result that can contribute in no small way to the discipline of thought. Indeed, we are now too willing to rely exclusively on what we can see and touch and despise every idea and every abstract research.

Such a disposition of the mind, if prolonged, would obviously make it impossible to produce a higher theory of the world, despite all the value it might have.

From what the reader saw in chapter 4,

-114- namely that the sensitive appearance representing to us in everything we touch with our hands or see with our eyes a world of external things is contradicted by the facts themselves, he will be able

to understand the theory that results of the research in chapter 2, namely the certainty that our ideas have their basis in their essence and are independent of whether they are abstract or concrete, and if the represented objects are near or far, in front or behind. Certainty can no more come from outside our thinking than the faculty of thought itself. Formerly, it is true, one could believe that perception provides assurance independently of thought; but it has been shown, since, how much it was not right.

In perception, nothing is immediately certain but the sensory impressions, and even particular impressions as such. But, this same certainty is acquired only by the greatest effort of thought. For, before thinking, impressions do not appear as impressions in us, but as qualities and states of external objects; they appear to be outside us in space. Thus, the basis of certainty denies itself. Also, immediate perception can only occur under the control of thought, which thus shows itself as the source of certainty.

The reader must necessarily be familiarized with these truths to follow with perfect intelligence and a real advantage, the research of Book Two. For the research of this book treats exclusively of the concept of the unconditioned that we found so far to be the Law which is the basis of the knowledge of the bodies. In the whole field of experience, there is nothing that really corresponds to this notion - and yet it is not only certain of itself, it is even the foundation of

-115- the certainty of all knowledge resulting from the immediate perception of our internal states and changes. But, there is a prejudice so manifest and so invincible against all supra-sensible knowledge that I cannot prevent, despite my best efforts, that all I can say be anything other than an empty noise and dead letter because the force of thought is not the same as physical strength. This is felt even by those who resist it; the first force needs the complicity of the reader to be effective.

BOOK TWO

PRINCIPLES

Chapter 1

The concept of the unconditioned

The positive establishment of the concept of the unconditioned will break down into three stages: 1. Proof of its relationship with the logical Law of thought, with *the Principle of identity* and of contradiction, that is to say, evidence that these Principles do not express anything but a concept of the proper, unconditioned essence of things; 2. Proof of logical relationship between this concept and the data of experience, that is to say, evidence that the empirical nature of things does not agree with this concept without, however, a logical contradiction with it, that no object of experience contradicts the Principle of contradiction, and that none agrees with *the Principle of identity*; 3. Proof that the facts confirm and warrant the objective value of the concept.

But, before coming to the establishment of this positive concept, we must first discard some of the prejudices related to it. For this, it is necessary, first of all, to consider the meaning of "Unconditioned".

The words Unconditioned and Absolute are synonyms, but the word Absolute refers to different things. Kant highlighted

-118- two meanings of the word, and Hamilton three, while Stuart Mill has even found four. According to Kant, the word Absolute refers on the one hand, "that something has value in itself and so inwardly" and on the other "that something has value in every sense (unlimited), for example, Absolute power." (*Crit. of Pure R.*, p. 311).

For Mill, the word Absolute means: 1. Completed, perfect, total and meets the second meaning of Kant; 2. The opposite of relative, and 3. Independent of anything else. The fourth definition is not at all clear to me (See *Exam.* p. 46-48.)

What is absolutely true, for example, is not only what seems true under certain conditions or is proved, but what is really true. An absolute barrier is not only that which is impassable in some circumstances, but what is really impassable. Similarly, absolute purity is not just the

purity compared to another state, a relative purity, but refers to the absence of any disruptive, foreign element. On this point, Mill says that we really cannot say anything of the Absolute, because everything Absolute must be something absolute, absolutely wrong, absolutely good, absolutely wise or absolutely foolish, etc. (*Id.* p. 56), in a word because the word Absolute can only be used as a predicate and not as a subject in the judgment. In this, Stuart Mill is obviously wrong. If we speak of an Absolute pure and simple, what is meant is the Absolute as to existence, that is to say, that exists by itself.

Whereas the existence of a thing is not a predicate like any other but signifies the presence of the thing itself with all its attributes, the Absolute in existence has not an attributive meaning. Moreover, the Absolute in existence of a thing means precisely that the thing in question can never be taken as a simple predicate, is not, in any way, a function or a moment of another thing and cannot ever be used to refer to another

-119- thing. A thing with such independence in its being is also called a substance. I note here expressly that by the words *unconditioned* or *Absolute*, I always understand that which exists by itself or *Substance*; These three words are synonyms for me.

Now, there are thinkers who argue that the concept of an unconditioned thing or existing by itself is contradictory and impossible. Bain [Alexander Bain (1818-1903),] for example, said: "The only possible knowledge of a world must be relative to our mind. Science is a state of mind; knowledge of corporeal things is a mental fact. We are not able to conceive the existence of an independent corporeal world; the act itself is a contradiction." (*Meaning and Intelligence*, 3rd ed., p. 375).

But, it is a fact that we do know a world of bodies independent of us, that is to say, unconditioned, and it is impossible to separate the belief in this world of our perception of things, even when we deny *in abstracto* the existence of bodies. As Bain's theory is contradicted by a fact, we do not have to disprove it any longer.

Another writer, Herbert Spencer [1820-1903], tried to show another way that the concept of something that exists by itself is contradictory and, therefore, cannot be thought of, though Spencer was forced, it is true, to admit something that exists by itself. One can predict that this demonstration is based on a misunderstanding. Because, the concept

of an unconditioned in a thing existing in itself, is quite simple, does not contain a plurality of determinations and, therefore, cannot in any way contain conflicting determinations. And, in fact, Spencer produces a contradiction because he unites the concept of self-existence with the idea of time. Here is how he expresses himself on this in his book *First Principles* (1863 p. 31): "Self-existence

-120- necessarily excludes the idea of a beginning and a concept of existence *per se*, is to form a concept of existence without beginning. But, we cannot do that without any effort of the mind. To think of an existence which continues for an infinite past time, we must conceive an infinite past time, which is impossible (1)."

There is obviously a confusion. What exists in essence, in time, that is to say a succession, is inconceivable without a beginning. That an infinite series of events has passed and, consequently, is complete, implies a contradiction because "infinite" means "that which cannot be completed."

There is a real antinomy because of the need to think of a series in a state of becoming without a beginning. But, cannot a life be conceived otherwise than in time?

Is the concept of existence in general or that of existence *per se*, in particular, inseparable from the concept of succession?

Rather, it is the opposite that is clearly understandable. For, apart from the existence in time, we know of an existence in space that contains nothing of succession in concept and which, therefore, is thought of as existence in itself. We can think a whole world in space without any contradiction, in which there is no change or succession. But, without succession, we cannot think of any time in general. This world also would have nothing to do with time. The lack of beginning

(1) Similarly, the remark of Spencer: "Even if self-existence is conceivable, it would provide, in any case, no explanation of the universe. No one will say that the existence of an object, in the present, is made more intelligible by the discovery that it existed already an hour, a day or a year earlier; therefore "the accumulation of these finite periods, even when we could expand them to an infinite period, would not make more intelligible the existence of the object." To say that the world exists by itself, is not explaining its existence, which, rather, needs no explanation. For to explain is to give reasons and self-existence is an existence that has no reason.

-121- in the existence of this world does not imply any contradiction. Hence, to conceive it, we do not need an infinite regression; it suffices to put aside any idea of time as not belonging at all to the concept of this world.

The concept of the unconditioned is, in fact, so far from being contradictory and inconceivable that it is rather the only one that is natural and intelligible to our thinking. The thought of an object that has not the reason for its existence and its nature out of itself is the only one where we can stop, which needs no further question of why or how. The objects of experience are quite inconceivable precisely because they are not unconditioned. For an unconditioned object is one that has an essence of its own, not borrowed from outside and, therefore, independent of any foreign matter, and the enigma of the objects of experience resides precisely in that, as I shall show explicitly later, they have no real proper essence. Therefore, an object (or a thing) is synonymous for us to an object [or a thing] that exists by itself, unconditioned. If an object depends on another, may be with others in a necessary relation, is not what is primarily involved in our concept of an object, but what is imposed on us by experience. The intelligibility of the concept of unconditioned or substance will be better highlighted when we show that it forms the fundamental Law of our thought. We will show now that it is identical to the concept of "thing *per se*".

It is Kant, as we know, who introduced the term *thing in itself* or *per se* [Germ. *Ding an Sich*.] But, most surprising it is that he himself did not have a clear awareness of what he meant.

So, we see the most amazing confusion reigning today in relation to this concept.

Thing in itself can have two meanings, and designate: 1. A thing

-122- abstracted from its relations with other things; 2. A thing considered in its own nature, taken in its own essence. The two meanings merge into one when we see it is not the very essence of a thing to be associated or connected with other things, in other words, that all relativity is foreign to the essence of a thing in itself. The definition of a thing in itself must, therefore, be based on the second definition mentioned above, because it is the most general.

Nothing is easier, as we see, than the concept of thing in itself. One thing in itself precisely is nothing other than a thing which has a *per*

se, that is to say a being really proper in itself, not borrowed. But, what is not borrowed is not conditioned, as I shall show in the next chapter. The thing in itself concept thus equates the unconditioned or substance.

If, now, relativity, a mutual link, belongs to the property of things, the objects of experience, which are closely related to each other, would be real substance of things in themselves, and the world of experience would itself be unconditioned. If it is proved, on the contrary, that relativity is totally foreign to the essence of things in themselves, we do not have in experience the true being of things; the thing in itself, the thing *per se*, or the unconditioned, is different from the world of experience.

Yet, this is precisely the assumption which is at the bottom of the Kantian distinction of the thing in itself and the phenomenon. From the fact that our knowledge of things is conditioned by the nature of the knowing subject, Kant concludes that we do not know things as they are in themselves. The indispensable premise of this conclusion was obviously the assumption that the true essence of things, things in themselves, cannot be known by a subject, or, in other words, that things primitively have no relationship with

-123- any knowing subject or a group of such subjects.

But, if this is certain *a priori*, it is only a part or a consequence of a general certainty that all relativity is foreign to the essence of things in themselves, that a thing in its own nature really has no relation with a knowing subject, even with any other thing. Because, we cannot *a priori* (1) know anything about the differences and exceptions in the relations of things.

This great doctrine of Kant, therefore, is based, as we can see, on a positive concept of the nature of things in themselves, on the opinion that all relativity is foreign to the essence of things in themselves. But, Kant was so far from having a clear awareness of this Principle, that he pointed rather to the concept of a thing in itself as a borderline concept, purely problematic, negative, which had no more sense than the limitative theory, according to which the basic concepts of understanding (categories) apply exclusively to the experience, and even to the human experience, and can never exceed it. This way of understanding the concept of a thing in itself was, it is true, only a consequence of Kant's theory that the categories of the understanding

do not relate at all to real objects and their knowledge, but serve exclusively to link our own perceptions. But, if we strictly held to this view, the distinction of things in themselves and phenomena lose all precise signification. How, indeed, and why, can we talk about anything or any object and what can we tell if a thing or an object was not different from our ideas, if the

(1) I say *a priori*, because the Principle of relativity is foreign to the essence of things in themselves, could never come from experience, since experience shows us all the objects completely connected among themselves, or with our knowledge.

-124- relation thereof to an object "was only to link ideas in a certain way and submit them to a rule"? (*Crit. of pure R.*, p. 214).

But, deep down, it was not what Kant wanted to hear.

If he had stuck firmly to his understanding of the theory (the doctrine of *Transcendental Analytics*), he would not have needed to write his theory of reason (the *Transcendental Dialectic*.) He, in fact, specifically says that reason "does not properly produce any concept, but only frees the concepts of understanding from the inevitable restrictions of a possible experience and seeks to expand them beyond the limits of what is experimental but in relationship with it." (p. 295) However, if the concepts of understanding are themselves nothing more than simple rules for the connection of ideas (as taught in *Transcendental Analytics*), so there is no need to prove at length that they have no value (as he calls the ideas) outside of experience. Because, we would have in this case no awareness of anything outside of experience. The fact is, however, that Kant recognized an objective value to the category of substance and he even wanted to apply the category of causality to things in themselves, as is clear from his doctrine of *Transcendental Freedom* and the supposition everywhere implicit in him that things in themselves produce our ideas.

The thing in itself is not, in fact, a concept different from the concept of substance, and it is clear that in our knowledge of a world of substances (bodies) we start by assuming a being in itself to things, different from the way we know them. We know the bodies as objects to which all relativity itself is foreign. Also Science itself is forced to

accommodate to this concept our customary manner of understanding the bodies,

-125- that scientific theories prove and in particular the theory of mechanics.

This Law of thought, which conditions the knowledge of the bodies, is also reflected in our consciousness of the essence of things situated beyond experience, or metaphysical, in the certainty that experience does not show us things as they are but contains elements, basically, that are foreign to the primitive essence of things. And relativity is not the only element of this kind, as we soon learn to know others.

The awareness that the experience does not show us things as they are, that the relation between the unconditioned and the objects of experience (conditioned), therefore, is not the result of Principle, but of something in itself, a phenomenon is the properly philosophical consciousness, and although Kant has made the first accurate and he has often manifested it clearly and with suite, it is very old, perhaps as old as reflection in humanity. From there came the astonishment on the nature of the world, according to the correct remark of Plato and Aristotle, as the beginning of all Philosophy. Who does not feel in himself or herself this consciousness and this astonishment will always remain with the point of view of the naturalist Researcher, without ever rising to Philosophy, even though he would produce the finest metaphysical theories. For, he is not simply a naturalist one who takes the world for the unconditioned, but also one who, distinguishing, it is true, the unconditioned world from experience, however conceives it by analogy with experience.

The being or non-being of a true Philosophy, distinct from empirical science, depends on the answer to the question of whether or not experience shows us, indeed, the primitive essence of things. And the answer to this question obviously depends in turn on whether we have or

-126- not an *a priori* concept of the proper being of things, which does not agree with experience, yet has an objective value.

To prove the existence of such a concept and its objective value, will be the subject of the next chapter.

Chapter 2

Logical Laws

§ I. *The Principle of identity.*

It is customary to take as first Principle of logic *the Principle of identity* which states: "A thing is what it is," or "One thing is identical to itself."

But, what is wonderful is that thinkers do not agree on the meaning of so simple a Principle. Some believe that this Principle relates to reality and expresses something about its nature, while others, perhaps the majority, held that Principle to be insignificant. It may seem surprising that we take as first Principle of thought and Science something insignificant and so to state it. We should not, in fact, declare anything in Science insignificant, for this is as much as to say nothing. But, it is believed that this insignificant Principle is essential to thought and that we can deduce something from it, without it ceasing to be insignificant.

First, let us ask ourselves what is the true sense of the Principle "One thing is what it is." It means that everything is entirely what it is, and just what it is, that is to say it has its own essence and it is really identical to itself.

- **127-** Accurately expressed, *the Principle of identity* would be: As to its own being, every object is identical to itself.

This Principle is, in fact, obvious in itself; but we still wonder: does it or does it not express anything about the nature of objects?

This question is not difficult to solve. Because, it simply amounts to asking whether a reality can be imagined that does not accord with *the Principle of identity*, in which it has no value. If we cannot even hypothetically conceive such a reality, it means that the concept of reality does not differ from the concept of identical to itself, and *the Principle of identity* is thus a purely tautological Principle or identical (*analytical*, in the words of Kant). For, the subject and the attribute mean exactly the same thing. It is not the same in the contrary case. Yet, it is the latter which is obviously true. We can make the assumption that everything real is conceived in a *flux*, in an uninterrupted change, without rest, never keeping its manner of being for an instant or that every particular thing is, at the same time,

something else. The concept of reality, on the one hand, and that of the identical to itself, on the other, are not the same but are two different concepts. *The Principle of identity* that expresses a connection of these two concepts is a Principle, not analytical but synthetic.

As such, it can be taken as premise of a syllogism and serve as Principle to Science.

The identity Principle that "One thing is identical to itself," is a general affirmation in the nature of real things, an assertion, as we have shown above (p. 59 ff.), meaning that, without it, the distinction between true and false would be impossible. But, we forget, most of the time, that *the Principle of identity* implies or requires a determined way

-128- of being of reality, and we can then see in it a simple formula or at the most a conditioning Law of the inner order of thought, a sort of police, unrelated to a reality external to thought. Yet, there can be no set order of thought but that which enables us to reach an accurate knowledge of reality and leads us there. A Law of thought without regard to reality is as little valid as would be to build a telescope without regard to the Laws of reflection and refraction of light.

But, another pitfall threatens us. One who sees how *the Principle of identity* is far from being a pure tautology can easily be tempted to fall into the opposite end and take this Principle for an empirical Principle, for a generalization of experience. It would be an obvious error.

The Principle of identity cannot come from experience for the simple reason that experience does not agree with it or does not realize it. Because, - to say a few words here which will be developed later - the concept of identity-to-itself is nothing but the concept of the Absolute, the unconditioned, existing by itself, and our experience offers us nothing Absolute, only the relative and conditioned.

If we take *the Principle of identity* to be a mere formal Law of thought, we should at least grant that it demands an unconditional rigor in how to conceive all objects. One should not confuse a half agreement for a complete agreement with it; otherwise, one renounces the accuracy, the penetration of thought which, alone, can guarantee its accuracy. Now, it is not doubted, all things considered, that if experience were entirely consistent with *the Principle of identity*, no object of experience could be defined and designated by a predicate, that is discernible from its concept; in short, all the contents of experience could and should be expressed

-129- in analytical propositions, not synthetic ones. The only thing one could say of an object would be: A is A - A is not B, but never A is B. The term A is B may, indeed, have a meaning which is not in contradiction with *the Principle of identity*, but it can never express anything that is totally in agreement with it. It is obvious. There are, indeed, simple qualities such as white or sweet, of such a nature that we can only say this: they are what they are; the white color is white color, the sweet flavor sweet flavor. But, even in the essence of these simple qualities, there is something that forces our thought to know them as always connected, always related to something else, or as states of subjects or as qualities and states of external things. So, they are known as moments of a synthesis, expressed in synthetic proposals and, accordingly, opposed to the Principle of contradiction. As for the other things, we know very well that they are *complexus*, summaries of the diverse (1). There is, therefore, no reason for experience not to accord with *the Principle of identity*. The interesting question for the theory of knowledge is rather this:

If *the Principle of identity* has the right not to agree with experience, what is the foundation of this right? This is an essential question of utmost importance for thought and the science of thought.

Should we go further in the effort and the course of our thinking that experience authorizes us, or should we not? That is the real question. If experience is the only foundation of knowledge, then there can be no logical Law in the sense that we understand it ordinarily

(1) However, it will be demonstrated later.

-130- in the theory. Because, we would then have to satisfy ourselves with approximate results, simple *more-or-lesses*. No rigorous certainty and without exception.

But, if *the Principle of identity* expresses a concept that does not come from experience, it then refers to another reality than the one experience offers us. And if, despite this, the objective value of this concept can be proven, then only do we have a supreme Principle of knowledge, the true foundation of the certainty of general theories, even those we get from experience (by induction).

§ 2. The Principle of contradiction.

The relation between affirmation and negation is called by Logicians contrary opposition and their union a contradiction. The simplest expression of a contradiction is, therefore: A is, A is not, or in union, A is not A.

Others also express the contradiction by saying: A is B and not-B. But it is obviously an unnecessary complication. Because the contradiction resides only in the contradictory opposition of B and not-B in the affirmation and the negation of the same thing, quite independently of whether or not one thinks of this contradiction in a third term A.

By Principle of contradiction, we mean that "The affirmation and negation of the same thing cannot be both true at the same time."

We have here exactly the same situation as with *the Principle of identity*: it is not only on the scope and meaning of this Principle, but also on its expression, that we do not agree. Sometimes, we express it by saying: A cannot be both B and not B, at the same time. But, Kant (*Crit.*, p. 179) has already shown how unwise it is to link the concept of

-131- Time with this Principle (1). His own definition is even worse, if possible; here it is:

One thing cannot receive a contradictory attribute (p. 178). Herbart offers this other one: "What is opposed is not identical." It is not difficult not to see in these two forms mere tautologies, the repetition of the same thing in other words. Ordinarily, it is formulated as follows: "Contradictory judgments cannot be true simultaneously." But, this expression itself has the drawback that one must first know what a contradictory opposition is. Moreover, so-called contrary judgments may also not be true at the same time (such as: all men are reasonable, no man is reasonable.)

The clearest expression and the simplest one is, thus, the one we have given above: The affirmation and negation of the same thing cannot be true at the same time.

Now, there is in reality neither affirmation nor negation, but being and real relations of this being that produce good combinations or conflicts of things and phenomena, but have a character quite different from the logical relation of affirmation or negation. Besides, the word contradiction itself only makes sense to logic. One will be easily led to believe that the Principle of contradiction has no relation to reality,

except our speech and our affirmations. But, we must not forget that the affirmations and negations, although they do not occur in reality, are, however, related to it. We affirm

(1) In fact, as I shall show in Part Two, the relations of succession and time, are known themselves thanks to the Principle of contradiction; they should, therefore, not enter in the definition. However, the usual form of this Principle cannot be expressed without reference to time relations and this is precisely proof that this formula is derived. We shall see this better, later.

-132- and deny solely the reality of a real object or a real relation. The true relation of the Principle of contradiction to reality is expressed by the word *true* contained therein; because, the truth, as we know, is nothing else than the agreement of the idea with reality.

In ordinary life, we do not see a contradiction in contradictory propositions only, as A is, A is not, but we see it in couples of propositions such as: A is round, A is triangular, A is in Rome, A is in Paris, A is all black, A is all red. So, we have to see whether certain combinations of contrary propositions form a contradiction like contradictories. Finally, we shall ascertain if the Principle of contradiction is *a priori* or is derived.

The issue must have its difficulties, since we see a penetrating thinker like John Stuart Mill sometimes unable to define any theory, sometimes admitting an astounding one. He has clearly observed that the Principle of contradiction is not a "verbal suggestion", that is to say a simple formula. But, in his *Logic*, he felt obliged to affirm that this Principle is "one of our first and our most familiar generalizations from experience" (I, p. 307-8). Conversely, in his book on *the Philosophy of Hamilton*, he seems to consider this Principle and other logical Laws as primitive necessities of thought. Once, it is true, does he say he has no particular view on this, "because who, knowing how artificial, changeable, subject to the circumstances most of these so-called necessities of thinking are (although these are in fact necessities for some people and in a given time), will hesitate to affirm that any one of these necessities is primarily part of our mental constitution" (*Exam.*, p. 475). But, elsewhere, he speaks of the Principle of contradiction with more decision: "That the same thing be and be not,

-133- at the same time – that the same affirmation be true and false at the same time, is not only inconceivable, but we cannot absolutely

think that it may ever become intelligible. We are unable to make any satisfactory sense of the proposition, or to assume another experience for this. We cannot even ask whether this inability is due to the primitive structure of our mind or if it comes from experience." (p. 84). The last sentence is obviously there to spare the Empiricism of the author. Of what Mill himself describes as inconceivable, he had to attribute the inconceivability to the nature of thought; otherwise, he introduced a true miracle by the fact of thinking the unthinkable and conceiving the inconceivable.

Yet, he says that a square circle and a body both all white and all black would be perfectly conceivable, if experience did not show that when a round line is square, it always stops being round and that when a black body becomes white, it always stops being black. Failure to unite these ideas must, according to Mill, be referred to "an inseparable association, as well as the original inconceivability of a direct contradiction" (p. 84). "We probably would have no trouble – he said - uniting the two supposedly incompatible ideas, if our experience had at first not inseparably associated one of them with the contradictory (Mill meant no doubt the absence of the other.) "

In our analysis of the contradiction, we must also include the opposition because they are linked together. The theory of it has not been presented so far with accuracy, and this is precisely the place to explain it in a few words.

There are only two kinds of oppositions, as such, the real opposition and the logical opposition. The real opposition

-134- that Kant, in his treatise on *negative magnitudes*, called "*real Repugnanz*", happens exactly as he says, "when the positive Principle of one of two things removes the effect of the other," that is to say between two forces or two causes that act on the same object in a different direction or otherwise. The logical opposition is between the affirmation and negation of the same thing; so that it applies only to that one and deletes it. But, what the logical affirmation and negation answer to, in reality, namely, being and non-being, presence and absence of an object, forms in and of itself no opposition. For, the being of an object in one place, at one time, is very compatible with its non-being in other places and at other times. The non-being of an object does not maintain with its being, a relation such as the logical negation maintains with the affirmation denied. Two qualities, two actual determinations may well not form in and of themselves an

opposition, because no actual quality has an exclusive relation with any other, since any quality may well exist next to another. It is obviously a mistake, when Herbart, in his "*Introduction to Philosophy*" (2nd ed., p. 254), believes the dissimilarity of qualities "in many things is in the relation of a contrary opposition, and therein occurs the world of bodies and minds." It is also unacceptable to think with Drobish [Moritz Wilhelm Drobisch (1802-1896)] (*Log.* § 22), that the extremes of a complete series of coordinated concepts are in the logical relation of contrary opposites. The opposition of black and white, north and south etc., considered from the logical point of view, has no more significance than that of white and red, north and west. The contradiction in the phrases: white is red, or the north wind blows from the west, is as strong as this: white is black, the north south wind blows. If qualities could be opposite, we

-135- could expect that their opposition grows with their dissimilarity; but, just the opposite occurs. For, we see that the qualities that belong to very different kinds are not opposed to each other and may well be united, as the square and white, or red and sweet. An object both square and white, red and sweet, can be imagined. On the contrary, qualities of the same kind form an opposition once they are applied to the same object, because they cannot be united. An object both round and square is inconceivable. This shows that the qualities and actual determinations may form an opposition not in themselves, but only if they are related to the same object; only, therefore, in the thought that unites them, and then it is easy to understand why similar qualities form an opposition rather than qualities of different kinds; this is because, by uniting the first, one thinks of something else than by uniting the second; by uniting a square and the color white, for example, we believe that the object is, from a certain point of view, white, while from another point of view it is square, which implies no contradiction, at least one evident. On the contrary, joining square and round, or red and white, one must think that the object is the same view at the same time, square, round, or white and red, which is an obvious contradiction. The qualities that belong to the same kind are to be added to an object from exactly the same point of view, but the contrast between them is not always so pronounced; this point must be cleared further.

There are, in experience, states and determinations that are absolutely opposite to each other and mutually exclusive as to their whole being,

when they refer to the same object. To know these conditions and to know they are incompatible, is all the same. As examples, let us consider curved and right, rest and

-136- movement, life and death, light and the dark. etc.

What moves does change places, that which is at rest does not change places. A line is straight when it always follows the same direction; a curve, on the contrary, when it continually changes its direction never remains the same. Life is a specific state of the organism; death, on the contrary, is precisely the absence of this state and the presence of a different state. We can say that this contradictory opposition is in the same reality, but it is revealed as such in consciousness. There are other differences that have essentially the same character, but do not show it so openly, as, for example, the opposition mentioned above between round and square. To know that a round cannot be a square, there is no need of experience or of a particular association, as Mill affirms, because it immediately follows from the concept of these two figures. The circumference is a line every point of which is equally distant from one point; on the contrary, all parts of a square are equally distant from no other point. In the affirmation of a square circle, the same thing is affirmed and denied, which is a contradiction. But, is not the contradiction as strong when we speak of a triangular square, elliptical or spiral? Obviously it is. But, where lies, generally, the reason of a contradiction?

If an object were one, immediately, with another, it would be different from itself, or, which is the same, if a quality were one, immediately, with another, it would be different from itself. But, that would be in direct contradiction with the Principle "Every object is identical to itself." Thus, the union of immediately different qualities form a contradiction and different qualities show themselves, in the attempt of such a union, as opposed to each other and mutually exclusive, although they sustain in themselves

-137- and for themselves no opposition because they generally have no connection.

In the case of the union of the first two oppositions, we have mentioned, rest and movement, curved and straight, etc., not one Logician would hesitate a moment to call it a contradiction. Because, although no actual condition can be simply and explicitly the negation of another, yet rest involves so immediately the absence of movement,

and conversely, to say that something is at rest or that something is not moving is exactly the same. Also, although logic calls the real oppositions contrary oppositions, we must grant that in this case the contrary opposition is absolutely similar to the contradictory. But, already in the union of round and square, a thinker like Mill believes he sees no contradiction. And, if one goes to the other qualities, such as color, strength, etc., the look of many Logicians is in such disorder that they see no trace of a contradiction in the immediate union of the different qualities. We must seek the reason for this phenomenon.

Oppositions of rest and motion and other similar in themselves have the property that they embrace the whole sphere of reality in which their concepts relate; they form a complete disjunction. For example, the state of a thing in space can only be rest or motion: there is no third term (1). That which is at rest is necessarily not in motion, and that which does not move is, in fact, at rest. Also, a line can only follow the same direction, then it is right; or change, and then it is curved. That which is not

(1) There is, indeed, between rest and movement an intermediate state, the balance, the trend stopped; but, considering only the position in space, there is no difference between this state and the absolute rest.

-138- curved is necessarily right, and *vice versa*. But, when two states so oppose each other that what is not in one is necessarily in the other, it follows that their difference is, to us, an absolute opposition, because the presence of the one makes us immediately think of the absence of the other and forces us absolutely to admit that one state is not the other.

Now, the difference of two states does not lose in the least its character because the possibility of other states, different from these two, occurs. But, our awareness of the difference can be influenced and changed. If there were in space only round and square figures, no one would think affirming a square circle were conceivable. For, consciousness of the difference of these two lines would be permeated with their concept. The round would be so clearly thought of as not square, and *vice versa*! This is obviously not the case.

A figure that is not round is not necessarily a square, it can have many other forms different from these two. It follows that the circle and the square do not form in our consciousness an opposition like rest and

motion, although round and square is as firm and as irreducible as rest and movement, curve and right. But, because the circle and the square do not form in our consciousness as pronounced an opposition, the notion of irreducibility of their difference is not as clear and present in mind and can be lost sight of, as we have seen for Mill.

Logicians, therefore, may say what they like, there is no doubt that two different affirmations, which refer to the same object from the same point of view, are contradictory to each other, as affirmation and negation of the same. When we affirm an object is square, we resolutely deny, if only by implication, that it is round, or elliptical, or any other form. When we say

-139- that an object is red, we also resolutely deny it is green, or white, or any color. It is immediately seen when two affirmations of the same kind are opposed to each other. Someone opposes my assertion that black men are black, with the assertion that they are yellow; I deny this last statement because, under the Principle of contradiction and the testimony of experience, it is irreconcilable with mine.

We must, of course, write two different formulas of the Principle of contradiction, namely:

1. The affirmation and negation of the same object, such as A is, A is not, cannot be true simultaneously.
2. Two different statements that relate to the same object from the same point of view, as A is round, A is square, cannot be true simultaneously.

The difference between these two formulas is first that the negation relates *specifically* to the affirmation and destroys it, while two statements cannot immediately negate each other, but only on condition that the Principle object cannot be shaped differently, from the same point of view, from which it follows that the contradiction of two statements is not as obvious as that of affirmation and negation of the same thing, but is implied. So, I call the first option "the Principle of obvious contradiction" and the second "the Principle of implicit contradiction."

We can never say of the Principle of obvious contradiction that it simply relates to our judgments and our discourse, and it expresses nothing in the nature of the objects; we cannot say that of the Principle of implicit contradiction, either.

This rule applies to our judgments because a true statement expresses the true nature of objects.

Two different statements on the same subject cannot

-140- be true at the same time, only because an object from the same point of view - be it the shape or color, weight, flavor or any aspect of its being, - cannot be formed at the same time in different ways.

§ 3. Passage of logic to ontology.

But, we have yet to advance a step further because it is not doubtful that the phrases "the square is in itself, as such, (unconditionally and immediately) red" or "red itself, as such, (unconditional or immediately) is sweet" contain a logical contradiction as much as the propositions "the circle is square" or "red is green."

An object from a certain point of view and with respect to a certain organ is red may well be sweet from another point of view and in relation to another organ; but, it is absolutely inconceivable and contradictory that red in the object is itself, as such, sweet or sweet, as such, round, in a word that two different qualities may be one unconditionally and immediately. Because, the claim that red in itself, as such, is soft obviously means that the red visual quality, in itself, as to its essence, is what it is not, that is to say, a quality of taste, and reciprocally.

Thus we come to the highest form of the Principle of contradiction: "The immediate and unconditional union of diverse is impossible," or "The variety cannot in itself and as such be one and the same."

The second formula of the Principle of contradiction given above necessarily leads us to it. Why, indeed, cannot an object be shaped in different ways from the same point of view? In other words, why is the union of two similar kind of qualities (two colors, two figures, etc.)

-141- not possible? (1) Obviously, because this union would necessarily be immediate and unconditional, which is contradictory and inconceivable. If an object were shaped in different ways from the same point of view, if, at the same time, it were square and round and at the same time all red and green, in it round would be square, red green; a logical contradiction. There is, instead, a conditional union of different qualities that is not contradictory and that is quite possible. A whole red apple can be sweet, because it is a conditional basis; but it cannot also be green, because its red color cannot by itself, in itself,

be green, that is to say generally, because the immediate and unconditional union of the different is impossible.

So, we found a total of three different formulations of the Principle of contradiction whose scope is growing.

Expressed objectively, they would be:

1. being and non-being cannot be united together in the same object.
2. Two different qualities of the same species (such as square, round, or red and green) cannot be joined together in the same object.
3. An immediate and unconditional union of different qualities of any species is not possible in general. The variety cannot, in itself and as such, be one and the same.

From the standpoint of logic, the first two options are only necessary and useful; the third has virtually not need to be mentioned in a treatise on logic. In effect, the first two are used as

(1) It is obviously recommended not to confuse here the unconditional union of two qualities of the same species, with their simple mixture that is never unconditional.

-142- general formal rules for our judgments (in their formal expression). It is not the same for the third and for the reason that a real contradiction never happens against this formula.

I do not want to say that the Principle of contradiction has never been violated in its third form, that no one ever claimed that the diverse, as such, is one and the same. Rather, an affirmation of this kind, made in the most general terms, is the basis, as we know, of a grand system, that of [Georg Wilhelm Friedrich] Hegel [1770-1831.] In our times, still, an assertion of this kind has become fashionable, that psychic phenomena and cerebral events that are their condition are, as to their inner essence, the same thing, and, to use the usual expression, are relative to each other as the convex face and the concave face of the same curved lens. But, these assertions hurt the Principle of contradiction as it expresses a point of view on the nature of things, not because it is a rule for judgment. Also, the Hegelians and the new Physiologists who identify the psychic and the material, do not notice that they are committing a logical contradiction. For, this contradiction never shows precisely in the form of two judgments

which are opposed to each other, as A is and A is not, or A is round and A is square. It is rather an internal contradiction that it is accepted in a particular judgment, a unique one (1).

(1) One cannot break down the proposition "red is, in itself, as such, gentle" into two contradictory judgments, as the proposition "the square is round". For, if it is broken down into the two judgments: A is red, A is soft, it just loses what was in it contradictory, that is to say the claim that the red in itself (unconditional) is sweet. Propositions A is red, A is mild, do not contradict because they presuppose a conditioned union of red and soft which is not contradictory and which occurs in nature. On the contrary, A is square, A is round, necessarily contradict because the union of qualities of the same kind cannot be conceived as unconditional and, consequently, never occurs in reality.

-143- When someone affirms the existence of an object and another denies it, or when two persons affirm for the same object different qualities, one that it is round, the other that it is square, they do not dispute the value of the Principle of contradiction. They both recognize it, on the contrary. It is precisely under the assumption of the value of the Principle of contradiction, under the assumption that an object cannot both be and not be, cannot be both round and square, that they argue over the existence or the manner of being of an object. On the contrary, to affirm that qualities of a different nature are the same, that red as such is mild, or that the psychic as such, as to its essence, is material, is to deny the value of the Principle of contradiction itself. The debate increases here, therefore, not in virtue of the Principle of contradiction, but against the Principle of contradiction itself. Also, the third formula of the Principle of contradiction can be considered and used not as a rule for the judgment, but simply as an expression of an ontological view of the nature of things. This third formula is independent of the time relations. An unconditional union of different qualities is possible or conceivable neither in their simultaneity nor in their succession. On the consciousness of this truth lies, as I will show later, the *a priori* certainty of the *Principle of causality* itself.

Thus is proved the passage of Logic to Ontology.

So far, Logicians have known the Principle of contradiction in its first formula only, "The affirmation and negation of the same thing cannot be true at the same time" but, one can easily show that this first formula

is derived from all points of view, and that, therefore, we cannot stop there.

First we can show that the first formula has

-144- no effective stability without the second, that the contradiction between affirmations of different men or between the ideas of one single man cannot be established and proved without the intervention of the Principle of contradiction in its second form. For, no one can, as I have shown above (p. 58 ff.), immediately see the fallacy of any idea in oneself, much less in another, and, therefore, come to immediately negate it. Any negation rather comes, in fact, from a conflict of affirmations. But, a conflict, an opposition between affirmations is possible only on condition that the Principle of contradiction is valid in its second form. For, in itself and by itself no affirmation contains the negation of another, no idea logically excludes another in an immediate manner, as no real quality is in its nature opposed to another. Different affirmations and ideas cannot, therefore, contradict unless we admit the Principle that an object cannot be from the same point of view conformed in different ways.

Thus, the first formula of the Principle of contradiction is conditioned as to its origin and its real stability by the second formula of the same Principle. But, it is clear that logically also, as to its form, it derives from it. For, the fact that being and non-being cannot be united in the same being, is just a special case of the fact that one and the same object cannot generally be shaped in different manners.

The first formula is, therefore, a simple consequence of the second, but it has no relation with the nature of things and the content of judgments and it only serves to ensure this result, namely that the affirmation and negation of the same thing cannot be true at the same time. Where does the negation come from, in general? How can a

-145- contradiction between ideas and judgments occur, in general?

This formula gives no indication about this. It assumes negations and contradictions as already preexisting; it supposes, therefore, a Law of thought which conditions them, but that does find its expression in this inadequate formula.

The first formula of the Principle of contradiction refers us necessarily to the second of which it is only a result. But, the second is itself, as we have seen, a particular case of the third. That the second formula of

the Principle of contradiction, "two different statements that relate to the same object from the same point of view, cannot be true at the same time" be a derived formula is proven, as we have already indicated by the fact that it is valid only within limits, or under a condition expressed by the words "at the same time." The fundamental Law of thought, which finds expression in the Principle of contradiction, cannot be linked, as Kant has already exactly observed, to a time relation. It is through it rather that we need to know, as such, changes and successions. The third formula of the Principle of contradiction expresses alone in all its generality and its full extent, the Law of thought that translates in logical rules.

To analyze this Law of thought and to verify it by the testimony of facts, will be the object of the next chapter.



Chapter 3

Proof of the supreme Law of thought

I. - BY THE COMPOSITION AND RELATIVITY OF EMPIRICAL OBJECTS

§ 1. The meaning and form of the supreme Law of thought.

It is now that we come to the crucial part of this work, the analysis of the fundamental Law of thought and demonstration by the evidence that experience itself gives. On several occasions, I have already indicated that the first Law of thought is a concept of the unconditioned being of things, that is to say the intimate necessity of believing something of the unconditioned being of things. To grasp the meaning and form of this belief, it is first necessary to look for what it means to be conditioned; easy search because, to proceed analytically in it, we do not need to get out of the sphere of our concepts.

To be conditioned is simply to depend on one condition, and we cannot define a condition other than as something that depends on something else. All that is conditioned, thus, necessarily implies a condition, a relation to something else.

Can we now reverse this latest proposition and say that all relativity necessarily implies and signifies a conditioned?

It is possible; but, we must move on carefully and, first, prove that to be conditioned and relative are not one concept, but two different concepts.

We have already referred several times to this opinion

-147- that knowledge and its object could be primitively and, as to their true being, in such a mutual relation that there would be nothing in either the subject or the object not included in this same relation. That such a relation is actually conceivable is another matter; but, admitting that there is such a relation between knowledge and its object, the nature of these two terms would be truth essentially relative - since they could only exist precisely in relation to each other – but, they would not be conditioned by either one or the other, so to

speak. The subject would in fact know, as an unconditioned and unlimited truth, objects as they are, and conversely the "as such", the very essence of the objects would not depend, in their concept, on the subject (which would make them conditioned), but would be one with it from the origin. From what mutually belongs from the beginning, as to its own being, in its whole being, we cannot make two different things opposed to each other; it is one and the same being, bound to itself and forming only one object without distinction. To the Metaphysician, this idea is familiar.

Most of the time, one represents the "absolute unity" or "the root cause" as a formation in which one finds a multiplicity of different elements which are necessarily closely related to one another. But, we do not consider this diversity in unity as conditioned because of the mutual relativity of the elements, rather we see in this, on the contrary, the nature of the unconditioned or the Absolute itself.

So, what is the kind of relation or relationship that constitutes the conditioned?

It is only when two objects are originally foreign to each other, when they primitively do not form, as to their own being, an object, and are not moments of one single unit, that the dependence of one in relation to the other

-148- makes them conditioned. Let us make use of our own inner experience to clarify this view. The fact that I deny determines an action; one says I act or I am free, that is to say I am unconditioned; but, if this action is prescribed to me by others, or if it is imposed to me by outside influences and made necessary, then I am bound or conditioned in my resolution, dependent and not free.

A restriction that I impose on myself is not a restriction, but, if it comes from others who do not consider my tastes, then I feel it as a real constraint, as an imposed condition that must regulate my conduct .

However, when two objects are foreign to each other, as regards their inmost, and one, however, depends on the other, this dependence obviously forms a foreign element to the object which is conditioned by it and an element located in it. The fact of being so conditioned does not mean anything other than the presence of a foreign element in the objects in question. A condition that belongs to the own essence of a thing is not, in a general manner, a condition.

We cannot indeed distinguish it from the selfsame thing, oppose it as the *as regards* with which the thing would be in a dependent relation. An object, therefore, which does not depend on other conditions than those in its essence, is absolutely not conditioned, because it depends only on itself and, therefore, is independent.

From the foregoing, it is an obvious analytical proposition, that the very being of things is necessarily unconditioned. The concepts of "things in themselves" and "unconditioned" are, therefore, absolutely identical.

This remark is of utmost importance. It involves nothing less than a complete revolution in the way of understanding the relation of the unconditioned with the conditioned.

This relation, we must not conceive, as is done

-149- ordinarily, as a Principle to consequence but, rather, as that of "thing in itself" to "phenomenon" which is very different from a Principle to consequence as will be amply and completely examined later in this book.

It will suffice to compare the theory we have just obtained analytically with the third formula of the Principle of contradiction, to see that this formula contains an affirmation of the unconditioned being of things to which all relativity, all union of the diverse, is foreign.

We found, in the last chapter, that the usual formula of the Principle of contradiction inevitably leads us to the second formula of the same Principle, which is already no longer a simple rule for judgments but is a determined enunciation about the nature of real things.

The second formula itself has appeared to us as simply a case of the third, which cannot, indeed, serve as a rule for judgments but is, for this reason, the complete expression of an immediate and certain view of the nature of things. We know that it reads:

The diverse cannot in itself, as such, be one and the same, or in other words: The unconditioned union of the diverse is impossible.

Everyone will certainly grant that this Principle is self-evident and can not be doubted. But, one will be rather inclined to see in it a mere triviality, a vain truth, since it cannot be used, like the other formulas of the Principle of contradiction, as rule for judgment, and that it seems, at first glance, not to add anything new to consciousness. But,

we now see that this Principle expresses something entirely new and unexpected for consciousness. Because, we use it to express - in relying only on the

-150- theory obtained analytically - that the very being of things is necessarily unconditioned and cannot have, consequently, but unconditioned qualities - and from these two premises, with a logical rigor that would impose on the more obtuse intelligence, ensues that:

In the proper, unconditioned being of things, no union of the diverse is possible.

Such is the meaning of the supreme Law of thought. Any assumption of a multiplicity and a relation in the nature of an unconditioned object, and all the common opinions about the unconditioned must be all rejected. We must believe to be completely certain that an unconditioned object contains in its unity no thought, no scope or idea or will, nor anything similar and cannot be divided into subject and object of consciousness. The reign of imagination, which can manifest itself only in combinations of the diverse, will be entirely excluded from the domain of Philosophy. Whoever wants to dream, let them dream at ease, but they cannot dare impose their dreams as Science.

We must seek to make this fundamental doctrine as clear as possible. One must always bear in mind that the true being of things is necessarily unconditioned; that to say something is part of the true being of things and say something is unconditioned, is all the same. And that, in particular, in relation to the unity or union of the diverse. If it belonged to the true being of the diverse to be one, its unity or union would depend on no external condition. And, conversely, to say that the unity of the diverse is unconditioned, does not depend on any external condition, is obviously to say that this diverse is one in its true being.

Such an unconditioned unity, rooted in the true being of the diverse, would necessarily be an immediate and immutable

-151- unity; immediate, precisely because it would be produced by nothing, by no condition; immutable, because the diverse would be indivisible and the composition of its elements could not change. If, for example, the red itself were round, it would be in the nature of the red to be round, and it could not be anything other than round. The redness and roundness would be one and the same object.

These two expressions: a unity or unconditioned union of the diverse is not possible and: the diverse cannot in itself, as such, be one and the same, are perfectly synonymous. But, the last proposition, as all negative general propositions, can, by conversion, be stated thus:

A being one and the same cannot in itself, in its true being, be something diverse or contain a diversity.

The intelligence of this Principle, however, and despite its obviousness, hits against several insurmountable difficulties. That two objects of the same kind, two oxen, for example, be one and the same object, everybody, no doubt, will find inconceivable and absurd; but, that two different qualities are one and the same object, one finds, on the contrary, very natural.

For, we are precisely used to meet in experience objects that unite in them the diverse, that contain differences, and we cannot free ourselves of the influence of this habit. But, we are, here, dealing with what an object is in its true being – we shall prove later that the objects of experience do not really have a true being – and, then, it is clear that the same logical Law that prevents us to conceive that two oxen cannot make one object, prevents us also to conceive that an object in general, in its true being is not one and diverse. For, this last proposition, as we have seen, is the converted formula of the Principle of

-152- contradiction: the diverse cannot in itself, as such, be one and the same, the evidence of which is obviously out of the question.

The following three Principles are, therefore, perfectly equivalent:

1. An unconditioned union of the diverse is not possible.
2. The diverse cannot be, in itself and as such, one and the same.
3. An object cannot, in its true being, be different or contain differences.

But, the last one is obviously the negative form of the following:

As regards its true being any object is identical to itself.

Because, the identity of an object with itself precisely means the absence of opposition and internal difference.

So we are back by a detour to the *Principle of identity* and we have observed, at the same time, that the *Principle of identity* and that of contradiction are the positive and negative expression of the same

view that relates to the true, unconditioned being of things, and is immediately certain and obvious by itself. We will search later, at length, what logical connection there is between this view and the objects of experience; but, its immediate certainty leaves no doubt that it expresses a primitive Law of thought which has its roots in its own nature and that governs its functions. This also confirms that, as we proved in the Book One, knowledge of the world of bodies can rest on a Law of thought that requires us to see all objects as substances. Yet, it is precisely the Law of thought that finds expression in the Principles of identity and contradiction, because these Principles relate to the true and unconditioned being of things.

We must, therefore, consider the presence of this Law as

-153- an undoubted fact; but, the question of its objective value still remains.

It is not quite inconceivable that we should be led and forced by nature to believe something that has no objective truth, that our thought depends on a Law to which, outside of thought, that is to say, in reality, nothing answers. Kant, as we know, considered in fact the Laws of thought as purely subjective forms, with no objective value. What would lead us more than the opinion of Kant to admit this possibility is the fact, observed in the Book One, that the world of bodies, known thanks to the Law of our thought, does not exist in reality outside ourselves. This fact is strong enough to deceive us about the value of our Law of thought. But, where would we find, it will be asked, the way to check and verify the fundamental Law of our own thinking? It is experience that offers us this way. Experience must, itself, testify most certainly and undoubtedly, in favor of the objective value of our Law of thought before we admit it with certainty. And experience does. If I confidently refuted all the false theories of the nature of the unconditioned it is because I could provide proofs of the objective value of the Law of our thought, drawn from the same experience. We shall give them.

§ 2. Proof of the objective value of the supreme Law of thought.

So far, we have remained in the field of pure logic; we have dealt only with our own concepts, without considering the nature of the given objects. We limited ourselves, indeed, to the recognition and analysis of the Law of our thought, which is not affected by the nature of the

empirical objects. But, now that we are examining the objective value of this Law, we must direct our gaze to the

-154- world of experience, to define its general characteristics and logical relationship with the fundamental Law of our thought.

We have seen that there are two expressions of this fundamental Law: A positive expression, the *Principle of identity*, which states: In itself, any object is identical to itself and, a negative expression, the *Principle of contradiction*, which in its most general form, reads as follows: Unconditioned union of the diverse is impossible.

We saw, then, that in its two expressions, the Law of thought relates to the true and unconditioned being of things.

Any proposition that affirms an unconditioned unity of the diverse is in a logical relation of contradiction with the Law of our thought.⁽¹⁾ Only the affirmation of an unconditioned union of the diverse is contradictory in itself, logically.

Only that which is in line with the *Principle of identity* is in full logical agreement with the fundamental Law of our thought, that is to say that which is perfectly identical to itself and contains absolutely no union of the diverse.

If experience offered us an unconditioned union of the diverse, it would be logically contradictory in its true being and would conflict with the Law of our thought. Then, we would be placed in the alternative of denying the value of the Law of our thought or rejecting the testimony of experience. Because, they are mutually exclusive. If, however, experience were logically in agreement

(1) That is to say that affirms that the diverse in itself, as such, is one and the same, or, in other words, that an object in its true being can contain a difference, can be different from itself.

-155- with the Law of our thought, one would find in it only objects perfectly identical to themselves; in other words, experience would never present the union of the diverse.

But, the first and more superficial look at the manner of being of empirical objects shows that neither one of these two hypotheses is true. A closer research tells us that experience offers throughout the

union of the diverse, but this union is never unconditioned and immediate (1).

The world of experience is divided into an outer world and an inner world, or, considering objects, into a world of bodies and a world of spirits or souls.

We will prove that what we have advanced is true of the one and the other.

Any one body, as we know, has many qualities; but these qualities are not in it one single thing, immediately.

When a body is at the same time red, round, soft, heavy and hard, red is not in itself as the sweet, and sweet as the round or heavy, but the body is red in relation to sight, mild in relation to taste, heavy relative to the mass of the earth, etc. The plurality of qualities in a body is produced and conditioned by relations with other things. A body, for example, if there were no light or seeing eye, might still be heavy and hard, but it would not be red or colored in any way, nor visible. If we imagined a world where attraction or gravitation no longer reign, the body might have a figure, a color, etc., but it would be weightless. It is the same with all the qualities of bodies. If we isolate in

(1) Experience, in fact, offers this union both simultaneously and successively; all objects are both composed and changing. The composition and change are also conditioned. We will study the change in the next chapter. Here, we have in view only the composition and the relativity of empirical objects.

-156- our thought a body from all other objects we find no longer in it the basis of a plurality of qualities.

For, all we distinguish in a body, are only the various manners it has in relation to our perception and other bodies.

But, we do not have, in Principle, to talk about bodies as real objects. Because, it has been proved, before, that what we know, in fact, as a world of bodies is none other than our own sensations. If there were real things outside us, they would naturally be outside our experience, and here, where only the testimony of experience is concerned, we would not have to deal with it. But, what makes the real fabric of the body, our sensations, which we know as its qualities, are quite different from one another and are linked together by virtue of a general Law that makes them always appear together.

This is also what we find in ourselves, in our inner experience. Infinite is the multiplicity of ideas, trends, faculties, needs, aspirations and other internal dispositions that a self unites in itself.

But, this union of the diverse is not unconditioned; the diverse in a self is never immediately, as such, one and the same. We shall show it by taking a particularly fruitful case.

In all the world of experience, there is not a more intimate union of the diverse than the one offered by the unity of subject and object in our consciousness of ourselves. I recognize myself and I am, therefore, in this awareness of myself as much the knower as the known. But, this unity is not unconditioned, either. The knower in me is not immediately the known, the subject is not, itself, immediately the object; as in all other cases, the idea here is something different from its

-157- object. I have already proved it in the Book One (p. 39 ff.).

The unity of our own self is, thus, inconceivable to us and we cannot perceive it, even though we ourselves are this unity. Because, all perception is an act of representation, it is necessarily located in one side, the side of the subject and, therefore, cannot form the point of union of subject and object. Thus, the unity of our self is like the binding of the diverse in the world in general. So we cannot perceive it; we obtain it by induction, while an unconditioned unity of the diverse would be given, in fact, at the same time as the diverse itself. In truth, we do not need to conclude first to the unity of our self, but it is not given to us as a finished object; we create it, somehow, always again as, in the circle of experience, we know as our own states certain phenomena (primarily our feelings of pleasure and pain), while we perceive the rest (namely, the sensations of the external senses) as an alien world of external objects.

On this subject, I shall have more to say in Part Two of this work. It was only necessary to show, here, that the unity of our consciousness of ourselves, the most intimate union of the diverse that occurs in the world of experience is, however, neither unconditioned nor immediate and, therefore, does not conflict with the Principle of contradiction and, in other words, is not in contradiction with the fundamental Law of our thought.

But, experience does not contain any object that accords with this Law. For, as we have seen, in the bodies, in the minds or in the self,

everywhere, the union of the diverse, which is the lack of identity to itself, shows.

The objects of experience are, therefore, neither identical to themselves or contradictory in themselves, and are neither

-158- in contradiction nor in agreement with the supreme Law of our thought.

The logical relation of the objects with the Law is the non-agreement, as the nature of empirical objects is non-identity to itself.

What does now follow from this logical relation of experience with the fundamental Law of our thought? An attentive reader will have already deduced the most immediate consequences, but we have, nonetheless to methodically expose here the derivation:

From the two premises: A. In his own being every object is identical to itself, or (negative form), in the true, unconditioned being of things, a union (also unconditioned) of things is impossible, and B. No object of experience is identical to itself, or, in other words, experience offers throughout a union of the diverse, but never unconditioned. The consequence immediately follows upon the theory of knowledge, that in the *Principle of identity* is expressed a concept of being (true) of things that cannot come from experience because, it does not agree with the manner of being of experience.

This was already out of the question, because the logical *Principles of identity and contradiction* are immediately obvious by themselves, and because the concept they express also serves as Principle to the knowledge of the bodies which comes not exclusively of experience. Now, the very testimony of experience confirms it.

Secondly, from these premises also issues, in an immediate manner, the following ontological consequence:

Experience does not show us things as they are in themselves, as to their true, unconditioned being (according to the *a priori* concept), in other words: Experience

-159- contains elements that are foreign to the being of things in themselves.

So, we have to distinguish two different sides of reality, making two domains: on the one hand, the true being of things, identical to itself, to which refers the statement of the Law of our thought - the domain

of the unconditioned - and on the other, the empirical representation of things and, in the words of Kant, the "phenomenon" which contains nothing unconditioned - the domain of the conditioned.

This is the essential view that dominates everything I have to offer, which implies, as I have already indicated, a revolution in the ordinary manner of thinking.

We shall now show how experience, precisely because of its non-agreement with the fundamental Law of our thought, testifies in favor of the value of the Law itself.

Precisely what, in the things of this world, does not agree with the statement of our supreme Law of thought, namely the union of the diverse which they offer everywhere, their composition and relativity attest, in fact, that the things of this world really do not have a true being, that their empirical manner of being, therefore, is not the true and normal nature of things.

The recognition of this fact takes us to the heart of the question.

Let us consider, first, the objects of external experience, the bodies. What is our sensation cannot belong to the bodies themselves, cannot constitute their own being. Were we to abstract from our knowledge of the bodies the whole contents of our sensations, and nothing remains but the thought of something that fills space and produces in other things effects of a particular kind. But, these two properties, to fill a space and produce effects in other things, are not for the objects manners of being as such, but only the ways in which they relate to other

-160- objects, or whose parts behave *as regards* each other. So, we cannot say anything of a body more than its behavior towards another. The being of a body is lost in pure relations, that is to say that a body does not really have a true being, no proper content which makes it an individuality (1).

For the bodies, this is no surprise to us, since we have found that our sensations are, in reality, what we know as a world of bodies. But, it is clear that the knowing subject himself has no true being. This fact is of a decisive importance.

The more we discussed on the nature of our self, the less it was clarified. However, it can be seen, no doubt, that all men and women have qualities of a similar nature and that they differ in how these

qualities are mixed and united in them. The qualities of a man are not of an individual nature, and man has not really a true being, really individual; his individuality lies rather in a mixture which, according to circumstances, is such and such. Our self, our personality, is thus the product of conditions; born and raised under other conditions, we would have been altogether different, or more accurately, we would not have been us, but another individual, different from the one we are now. So, we do not have in reality a core, a true content.

(1) The greatest Philosophers, like the greatest Scientists, are unanimous in recognizing that fact. Kant, for instance (*Crit.*, p. 271) says: "The whole concept of matter consists of relations." [Hermann von] Helmholtz [1821-1894] also notes: "Every quality of a thing is really its ability to produce certain effects on other things." But, what boils down to pure relation is obviously like zero. Because, relations are inconceivable without objects between which they exist. Similarity, dissimilarity, etc., cannot be thought of without objects that are similar or dissimilar, etc. That bodies are reduced to mere relations means they do not have a true being, but also that they have no real existence, that they are not things, but simple ideas.

-161- And not only our individuality consists of a simple combination of common qualities, but also the same qualities are mere relations. We can show this on the three sides of our being, thought or knowledge, feeling and will. Regarding thought or knowledge, we have already proved that its being consists of a particular relationship to objects. The role, the determination of thought and knowledge is precisely to reflect, to make things and relations external: it is nothing in itself, but it represents something external.

And our feelings, our will are obviously also a way of reacting against actions from outside. That one suppress in thought, any community between us and the other things, and we are plunging into the void. Without this community, we would be unable to think, feel, or will; because, external things are necessary for the exercise of these three faculties. Without the other things we would not be; our being is only reaction and relation, that is to say we really do not have a true being. (1)

We see, therefore, that the empirical nature of things never allows itself to be grasped or fixed. Should we grasp it at one point, she virtually slips between our fingers.

It is always traveling, so to speak, from one thing to another, never home. The composition and the relativity of empirical objects, which do not accord with our concept of true, unconditioned being of things, precisely show in fact that the empirical nature of things is not their true, unconditioned nature. But, we see this in an even more striking manner, if possible, in the change of empirical objects. This will be the subject of our next chapter.

(1) However we are not, like the bodies, something just represented, which does not exist in reality. Because, precisely, our function of representing is something real and consequently, as we already saw, something immediately certain for ourselves.



Chapter 4

Proof of the supreme Law of thought

II. - BY THE NATURE OF CHANGE

§ I. About the essence of change.

Change in its being is as enigmatic, as unintelligible, as when at the first awakening of Humanity to conscious life, it excited the wonder of the first thinkers.

Those who had the most positive mind could not, considering the instability of all that is, the decadence of the most powerful creations of nature and the human mind, defend themselves from this speculative emotion. "All is vanity, all is nothingness!" Such was the ordinary conclusion of these considerations. Hence, the awareness that movement, birth and death, that every phenomenon in general, only occur in an abnormal way and that the being of the immutable substance is the only normal way to exist. And this consciousness is deeply rooted in the nature of thought itself (1). The immutable is somehow the polar star towards which are directed all the tendencies of the mind. Only there is rest, truth, and freedom. What is lost, perishes or changes proclaims this truth that it was not what it appeared to be. What yesterday was true became false today, has not remained similar, true to itself; it is neither this nor that, it is nothing. Already in the first Ages, in the consciousness of men, change was a sign of, a synonym for, falsehood.

(1) This consciousness is also, as I indicated, at the bottom of the natural appearance that shows in ourselves an immutable self, and in our sensations a world of immutable substances of bodies, with which agree all the contents of experience.

-163- This consciousness has grown with remarkable energy in several thinkers of Antiquity, for example in the authors of the Vedas and the Metaphysicians of Buddhism in India, as in Greece in the Eleatics. All felt the whole world changing as mere appearance or illusion. In modern times, no one ever went so far, because experience speaks too loudly and demands its rights - and experience shows us everywhere vicissitude and change. However, in the last century, appeared a

doctrine that comes very close to this ancient negation of all change or *becoming*; I mean Kant's doctrine designated by the name of *Ideality of time*, on which I must first pause a moment.

Kant's doctrine of the ideality of time is, as we know, to affirm there is not actually succession and change, that all successions are just the way the contents of perception appear to the knowing subject, in conformity with its own nature, and must represent what is given. Time and succession are, for Kant, simply the form, belonging to the subject, inherent in the subject, of the Intuition or the receptivity, or "intimate sense." A mind differently organized than ours should, according to Kant, not notice any succession in what seems to us to be a succession.

This doctrine of Kant is neither true nor consistent. It is not possible to relate the reality of the perceived content and deny at the same time its changes. Or, we should deny both things, as the ancient thinkers did, or recognize one and the other, because they are inseparable things. At the very moment the contents are perceived, successions are likewise given us.

Kant had reached a correct point of view on the ideality or subjectivity of space; his love of symmetry did not

-164- permit him to stop there; he had to force the idea of time in the same bag. What applies to extension, had to be worth as unconditionally to time, because they have one and the other many common or similar traits. Kant did not understand that this agreement could come from the fact that one of these two ideas is somehow involved in the production of the other. It is remarkable that, even before the publication of the *Critique of Pure Reason*, Kant had received very sensible objections to this confusion of space and time.

It was shown him that whatever the doubt we may have, the reality of our ideas cannot be doubted, and that they are obviously successive, they follow one another.

But, Kant did not want to answer that objection. Here is what he says in his "*Crit.*, § 7, Clarification". He affirms that the succession of ideas is not different from our idea of succession: "I can say, it is true, that our ideas follow each other; but, this only means we are conscious of them as in a succession, that is to say in the form of the internal sense. Time is, therefore, nothing in itself; it is not an objective determination of things" (p. 86).

But, it is clear, first, that I cannot know anything of a succession as such if I do not have at the same time in my consciousness the parts that constitute it (see above, p. 30). The idea of succession is not successive itself; therefore, it is quite different from the succession of our ideas. Secondly, Kant's theory implies so obviously absurdities, that we are surprised they go unnoticed.

If there is no succession in reality, if all is simultaneous, then every thing unites in itself, at the same time, contradictory determinations. For, all the things of this world are subject to change; in all of them, states follow one another which would be contradictory if they were simultaneous;

-165- if, therefore, we deny the reality of their succession, we specifically affirm a contradiction. Kant's theory is obviously just a simple misunderstanding, in which the same man is both young and old, both learned and ignorant, both alive and dead; the past is not the past, the future is not the future; the past and the future exist simultaneously. How could conscious life, from the beginning to the end, with all its details, be seized only by the inner sense? The truth is that we cannot separate the content of the perception from change, and succession. If one says, "I think the states change", this appearance is something objectively present and the succession has in it an unmistakable objective reality: things really follow one another (1).

(1) We must observe that Kant did not remain faithful to his theory of succession. Thus, he says in the *Crit.*, p. 47: "Change is a concept that can be derived only from experience"; and further, in the proof of the first *Analogy of Experience* (p. 202): "We have to find in the phenomena a "bedrock", "which represents time in general, and can be seen in the apprehension, in all changes and in any simultaneity, by the relation that the phenomena have with it." On this supposition that successions could not be perceived without the perception of something stable, is based his alleged "*refutation of idealism*" (p. 234). Thus, p. 247, he affirms that "all changes presuppose in intuition something stable, so that we can perceive them as changes." But, if it is so, if knowledge of the change is possible only by perception of something stable, this precisely means that changes or successions are not immediately perceived as such, but are concluded only. On the contrary, according to transcendental Aesthetics, changes and successions are not only seen immediately in intuition, but do not exist outside of it. Moreover, it should be noted that the whole *Critique of Pure Reason* has merit and value, only by admitting that our ideas themselves appear to us as they are. For, if our ideas appeared to us otherwise than they are, we could not affirm anything about them, no theory of knowledge, nor any transcendental research

would be possible. Now, it is beyond doubt that our ideas appear to us as successive. If Kant had satisfied himself to accept that time is not something real, he would have been right; because time is a mere abstraction of successions and cannot (as empty time) be represented. But, to deny the reality of given successions, was a truly amazing endeavor.

-166- The Kantian doctrine of the ideality of time had, indeed, a foundation, but one we would not have expected to find in this Philosopher. We could have thought that Kant, who attributed so much importance to the distinction of the thing in itself and the phenomenon, understood clearly what he meant by phenomenon, and what reality he attributed to the world of phenomena. But, this is not the case. Everywhere, he understands by phenomena simple ideas, but without distinguishing these two so heterogeneous things, "to be an idea" and "to be simply represented" or "to exist simply in the ideas." He did not distinguish the idea itself, as an objective fact, from what is represented in it. He, therefore, recognized only two sorts of things: 1. The thing in itself, totally independent of the idea, and 2. objects that exist only in the idea and that have no objective existence. He did not understand that in addition to things in themselves and things to us that exist only in the idea, there is a third kind of things, distinct from the others, that really exist, not yet as things in themselves, namely us, the knowing subject, our ideas. It is easy to see how this error has led to the theory of the ideality of time.

As time or succession could not be considered as a determination of the thing in itself, he had, as a result of his mistake, to look at it as something represented, with no objective existence.

It cannot come to our mind to deny the given successions or changes, in the way the ancient Philosophers did, or Kant understood. What could we indeed hold as real if the facts themselves were not real?

But, that the change could be denied by thinkers is of profound significance. Thereby, the intimate consciousness of humanity expresses, that change, vicissitude, succession, do not belong to the true being of things. And this

-167- consciousness results from the fundamental Law of our mind, as we shall clearly observe.

We know that the Law of our thought, in its positive form, says: In its true being, every object is identical to itself. But change is the opposite of identity with itself. Whatever changes is not identical to itself.

Where there is identity to itself, there can be neither change nor room for change. In conformity with the fundamental Law of our thought, any change is foreign to the being of things.

It is an eminently important view and we want to confirm it yet another way.

§ 2. Proof that movement does not belong to the true being of things.

The question to be solved is expressed, according to Herbart, by saying: Is an Absolute becoming conceivable? Should we look at change as a quality of that which is subjected to it?

Let us admit temporarily it be so, to see what consequences this assumption implies. First, I will turn to Herbart, who, in his *Introduction to Philosophy*, § 108, addressed this issue. In his view, the assumption of an Absolute becoming includes the following determinations:

"First, that the real does not change once to stand still again, but that change is constant, from the whole past til the whole future, without beginning, without stop and without end. Then, that it lasts continuously with the same speed, and that in similar periods of time it completes one and the same *quantum* of transformations. Finally, that the direction of change is and always remains the same, so as to prevent returns altogether and then advances again and the repetition of the previous states." (p. 146).

-168- Herbart was, in this, totally mistaken. A uniformity of speed and direction is very far from being required by the concept of "Absolute becoming"; it is rather contradictory to it, because it implies a sequence of successions. What do we mean when we affirm that change, succession, are the true, unconditioned, way of being of things or reality? Obviously this above all: things, not only in appearance but in reality come from nothing and actually perish, that is to say, vanish into nothingness, and have no connection between them. For, if it were not so, everything, in fact, would be simultaneously present, reality itself would be inaccessible to change. Any change would be, then, a simple movement of parts or a simple succession in the conception of a spectator, like the images in a panorama [movie.] The change would not be the proper quality of the real.

But, we must take the subject in all its generality.

Taken in general, a change or Absolute becoming is nothing more or less than a change without cause. From no point of view, in any sense, the expression "Absolute becoming" can have another conceivable sense. Because, becoming and change are synonymous, and a change cannot be Absolute if it is not without cause. If these famous thinkers, Herbart and Hegel, had had this simple fact before their eyes, they could have saved a lot of mistakes about the Absolute becoming.

Hegel should have, it is true, renounced his grand system based on the assumption of an Absolute becoming. For, what proves that there is no Absolute becoming or change is the universal authority of the Law of causality.

Basically, however, we cannot understand anything by Absolute becoming but the production of nothing (or nothingness), and, indeed, for the following reasons:

If an object A changes itself, without cause, and takes on

-169- a new quality or manner of being B, there are two conceivable cases. In effect, one must admit that, either the quality B was already, primitively, A, that it belongs to its true being, or it is foreign and new to it. But, in the first case, there would not be any change. As if A were B already from the beginning, it could not become B; the presence of B in it would involve no actual change of its being. There remains the other supposition, that B is foreign to the object A. To believe A became B without cause, is like believing that B is born of nothing in A.

Quality B would then have no real basis, not even in A, nor in a cause out of it.

This is, therefore, to come as close as possible to the doctrine that change is an inherent, unconditioned quality of things, to assume that the contents of the real itself (not its pure forms) comes from nothing and must return to nothingness. Such a manner to be born and die would naturally be subject to no cause. For, as nothingness can have no relation to anything, what comes out of it cannot have more.

It would be, indeed, an unconditioned fact, an Absolute becoming. To define whether the thought of such an act makes sense or not, we shall deal with it later. I simply offer, now, the following remarks:

Even assuming such a fact, it is not possible to assimilate the content and the form of change, to look at change itself as a way of being of

what changes (of what succeeds, in reality). Because, if the real comes from nothing and returns to nothing, which is born and which perishes is not the true, stable, representative of reality, but merely the form of change. But, for this form, that which is born and dies is irrelevant, provided it is the diverse that succeeds. So, we have the choice between two hypotheses

-170- only: one must either affirm that the form of the change in itself is accidental and unrelated to the real given in it, or, conversely, that the same form is the true reality, and that the changing content is purely accidental. But, it is not possible to unite in an indivisible concept the content and form of change. Because, the change, the successions, are not, in truth, a particular form of reality, but means instead that the forms in which reality is given are purely accidental, that is to say do not belong to its true and primitive being.

There is only one way for the selfsame succession to give itself as an essential determination of a subsequent content, it is only when the subsequent is bound. Through this link, each element of the succession takes exactly the place that belongs to it and becomes an integral part. But, if the diverse is so bound, it is necessarily all present at the same time; its appearance, its disappearance, are merely appearance. For, if all the various things were really born, that is to say of nothing, their particular community would be nothingness, precisely, which means, in other words, they have nothing in common.

But, the hypothesis of a real content emerging from nothingness is a contradictory fact and even does not make sense. For, in saying that nothingness changes and becomes something, we obviously confuse the concepts. We could not reasonably speak of something that comes out of nothing unless experience showed us an instance. But, it is absolutely impossible. Because, to know by experience that something comes from nothingness, we should have the experience of nothingness itself, which obviously cannot be. When we do not know whence something originates, we must content ourselves with affirming that we do not know. That something

-171- could come from an area of existence inaccessible and out of the reach of our experience; at least this is the only reasonable and feasible assumption because we remember that all that is in the domain of experience is linked, which excludes any appeal to nothingness.

Once the hypothesis of a world out of nothingness no longer suffices to allow us to see in change a true quality of the content of this world, any other assumption can suffice even less. If the content in effect, the true elements of reality, does not come from nothingness and does not vanish into nothingness, the fabric or contents of this reality exists from eternity. Because, we cannot consider the succession, the change, as a quality of things in themselves, that is to say belonging to the true, unconditioned, being, of things. The Law of causality still establishes it, that is to say the fact that all changes are conditional, depends on causes, which will be discussed at length later.

After proving that change, succession, cannot be considered as the intrinsic quality of reality, we have to prove that the way of being of things subject to change cannot be truly their own nature, not only because it is conditioned, but because it is abnormal.

As there can be no question, as we have seen, of a formation *ex nihilo*, any change, any succession, is a change of something that already exists. But, one thing that changes, sometimes one way, sometimes another, clearly proves itself that it has no true being.

Neither its previous state nor the ulterior belong to it because they are opposites. What is changed is not what it was before; it became something else; and it is not exclusively what it has become, since it was different before. The nature of changing things is somehow

-172- always on the road, never home; this is not the true, normal, nature of things.

Now, every thoughtful reader will see how experience, even following its non-agreement with the fundamental Law of our thought, confirms and proves the objective value.

According to this Law, anything in its own being is identical to itself, contains no internal difference and, therefore, is not subject to any change. The empirical nature of things does not agree with this Law; the objects of experience are not really identical to themselves.

But, these elements in the objects of experience which do not accord with the Law of our thought, by which defects in their intimate identity manifest, namely their composition, their mutability and relativity (in short, the union of the diverse they present everywhere), clearly show that the objects of experience do not have a true nature, and that the empirical nature of things is abnormal as well as conditioned.

Here, then, we must first of all understand the logical relation of the fundamental Law of our thought and the empirical way of being of things, that is to say to see that this relation is not a complete agreement, nor a contradictory opposition, that this empirical manner of being does not offend the Principle of contradiction and does not agree with *the Principle of identity*, that it does not realize what the Law requires but, in fact, attests the objective value of it – precisely from the point of view of the true, unconditioned, nature of things.



Chapter 5

Proof of the Supreme Law of Thought

III. - BY THE NATURE OF THE SENSATIONS OF PLEASURE AND PAIN

Composition, relativity and mutability are the more general features of empirical reality, those that are found everywhere. Nothing in the field of experience is absolutely simple, without internal difference, nothing is immutable and free of conditions. And precisely composition, relativity and mutability of empirical objects themselves show that the way of being of these objects is not really the true, normal, unconditioned, nature of things, and this is a compelling argument for the value of our Law of thought, supplied by experience. But, for greater clarity and certainty, I will cite a particular fact which gives a striking proof in favor of this Law, the fact of pleasure and pain.

In our feelings of pleasure and pain, we do not feel simple changes, but a living source of changes. Nothing in the world has an internal need for change with the exception of those feelings (1). And this need for change is so highly significant it reveals at once the true nature of empirical things, something impossible to mistake or doubt.

Let's see what it is. - Pain is a condition which cannot remain similar to itself, which contains the trend or

(1) See justification for these selves in the chapter of Part Two concerning Will.

-174- the intimate necessity to move to another state (pain-free). We cannot experience pain without waking the imperious desire to get rid of it. Some thinkers of antiquity unsuccessfully tried to represent pain as something indifferent. The nature of things convinces them of a lie. For, indifferent is that which does not affect our sensitivity, that which makes us neither happy nor sad, directly or indirectly. Being indifferent and not affect the sensitivity are synonymous expressions. Basically, these ancient Philosophers simply thought, apparently, that contentment, the happiness of the wise man should enable him to overcome pain.

Pain is, therefore, a condition in which there is the need to destroy oneself, to deny oneself. If it is too great and there is no way to remove it, it leads, with a natural necessity, to suicide, the destruction of the whole sensitive being. But, the destruction of oneself is how a real object condemns itself and denies itself, not in words and thoughts only, but in deed.

And how this remark is strengthened by the facts! What thoughts reproduce in a weakened manner is, here, the whole reality; what is affirmed only in words and thoughts is here accomplished in fact. The nature of things itself judges and states in a way quite independent of our opinions and with sovereign authority. By pain and in pain, we immediately feel that we are in an abnormal state. But, the state of a thing is abnormal only when it contains an element that does not belong to its own being and that, as an element imported from outside, breaks up its harmony. So, we immediately feel through pain the truth of that which the supreme Law of our thought proclaims.

The inner necessity for a state to deny itself implies, in fact, a double testimony.

-175- First, that the internal harmony, that is to say, the identity to itself is lacking in this state. That which is similar to itself, identical to itself, cannot obviously contain the tendency to become different from itself, to annihilate its present state of being, to fall into contradiction with itself.

But, secondly, this proves that this lack of inner identity is an abnormal condition, somehow against nature, since it actually condemns itself and denies itself.

Pain expresses, therefore, in the sphere of feelings the same as the Law of thought in the sphere of thought, namely this: in the true being of things, a perfect identity to itself reigns; the empirical representation of things is on the contrary missing identity, and that is precisely a proof that they contain elements foreign to their true being that, therefore, there is something abnormal, namely the contradictory and false for intelligence, the pain and the evil for the feeling.

Intelligence is not, as we see, the only means that allows us to conceive the unconditioned; feeling also leads to it and that is a matter of extreme importance. For, the fact of conceiving the unconditioned by feeling is precisely religiosity, the true foundation of all religion worthy of the name. Religiosity is nothing else in fact than the

intuition of a *higher nature of things*, and the inner sense of *our union with it*. We shall only say that it is the connection of the religious feeling with feeling in general.

Pain proves by its very nature that it is what should not be; that it is the expression of an abnormal state, a fallen state; it also proves immediately, on the other hand, the presence of a normal, higher, way of being, which alone has the right to exist. Add this blunt testimony, not tainted by false opinions, to

-176- a habit of the soul, a consciousness: Thus, is formed the sharpest and clearest sense of what is superior, of our relationship with what is above us and our natural tendency to reach to it; this is precisely the sense of religiosity. So, are we correct in saying that suffering, from a certain point of view, is holy, because nothing is more prone to develop the religious dispositions of the mind. The aesthetic pleasures too, by their contrast with the ordinary impression of things and by their nobility, can excite or quicken in us this sense of the divine. On the contrary, nothing is more foreign to the feeling and the religious sense than vulgar pleasures and base enjoyments (1).

Thus, the awareness that the true being of things is identical to itself and that experience does not show us things as they are, namely the only philosophical consciousness, in an eminent sense, is also the religious consciousness, in a higher sense. What Philosophy proclaims by the organ of thought and concept, religiosity proclaims by the organ of feeling and that these two independent sources lead to the same result, is a guarantee of the accuracy of their common testimony. The religious consciousness borrows from Philosophy its scientific foundation and explanation and philosophical consciousness borrows from religiosity the superior consecration of feeling. We have thus the invaluable advantage to be able to establish a perfect harmony between the demands of thought and feeling, between Science and Religion.

(1) Here, we see why Asceticism is so often associated with the religious feeling, though it is not necessarily of the essence; because, we must distinguish between the pleasures, whether they are gross and vile or innocent. Life supposes a compromise between the requirements of our higher nature and those of our empirical condition, according to their circumstances and Laws. Asceticism wants nothing to do with this compromise and that is what makes it contrary to nature.

-177- The proof of the value of our Law of thought that we gathered in the last three chapters, from the data of experience itself, is, one might say, sufficient and decisive.

It is not, indeed, a proof in the true sense of the word, since we have not deduced the certainty of the Law from something else. Such a deduction is neither possible nor necessary. Because, the statement of our Law is immediately certain, self-evident and expresses the only evident general view. It is conceived of itself, without proof, that every object must have a true being and in its true being be identical to itself, not to contain any difference, not to be both one and many. But, as soon as the data of experience and its objects do not agree with this statement, then the inner certainty of our Law is not enough to make its objective value perfectly sure and it remains to be seen whether the objects of experience, precisely because they do not agree with the Law of our thought, do not confirm its truth and objective value. I have shown that this is indeed the case. Quite precisely, the qualities of the empirical objects which do not accord with the *Norm* of our thought, namely their composition, relativity and their mutability, prove, as I have shown, that the objects of experience have not a really true being, that the empirical nature of things is not their true, normal and unconditioned nature. Pain and pleasure have confirmed this fact, and in them it is our own true nature speaking.

There is still, however, a proof of the value of our Law of thought which will no doubt appear to many the most important; but we cannot give it until Part Two. We confine ourselves here to the following remarks.

The very thing that, at first glance, inspires doubt on the objective value of our Law, namely the fact

-178- that it is also a Principle of appearance, that the bodies known through it do not exist, constitutes, instead, if we look at it closely, a proof of this objective value.

And, indeed, although the objects of experience do not agree with the Law of our thought, although they all are compounds, changing and conditioned, they are all, however, naturally organized to respond in appearance to that Law .

The content of our experience is so organized that we recognize in our inner states a self, seemingly simple, unconditioned and permanent, and in the sensations of the external senses, a world seemingly of

immutable substances *per se* (of bodies). Can experience provide us, for the value of our Law of thought, a clearer testimony that this direction of nature which presents the whole content of experience in apparent conformity with that Law? Can the abnormal offer against itself and in favor of the *Norm* a clearer testimony than misrepresenting its own nature and presenting itself, apparently, as normal?

So, when I show in Part Two: 1. That neither the inner experience, nor the external experience, contains anything really simple, unconditioned and permanent, that our self as well as the world of bodies perceived by us is in reality made up of mere phenomena, ever changing, compounds, and 2. That the contents of both our internal experience of our external experience are by nature so ordered as to deceive us about their being and show us, in this dual experience, seemingly normal objects and substances, that is to say, a simple and permanent self and a world of unconditioned and permanent bodies - we will draw from the data of experience a new, evident, proof of the value of our Law.

Yes, the fact that our experience, precisely because it does not agree with the *Norm* of our Law, because it is conditioned

-179- by a systematically organized illusion, it is universally led by nature as to appear to tally with our thought – this fact raises us to a height that neither the human mind nor, in general, any thinking mind can exceed. It reveals, once and for all, the deepest essence of both thought and reality in general, and a seasoned Philosopher can deduce from it the whole system of true Philosophy, as a skilled Mathematician may deduce from the Newtonian formula of the Laws of gravitation the whole system of celestial mechanics.

Before coming to this deduction, I shall, in the next chapter, introduce some remarks.



Chapter 6

The body of thought

§ I. *a priori* concepts

By the name of concepts, we usually understand general ideas obtained by abstraction and generalization of specific data. An *a priori* concept naturally cannot be an idea of this kind because it is not abstracted from the data of experience. Still less should we, with Kant, take *a priori* concepts to be mere forms of thought, which only serve to bind in a consciousness the diversity of intuition. The necessary relation of the thought (the idea) itself and, consequently, of all forms or Laws of thought, with reality should have, from a long time, in the theory of knowledge, the value of an axiom. By *a priori* concept, we can only understand a primitive Law, a propo-

-180- sition or an internal necessity to think and to know objects in a particular, determined way, which is not given in the objects themselves; to believe something of the objects, something that is not deduced from their given way of being. In a word, a concept *a priori* is a Principle of affirmation concerning objects and real facts.

But, the darkness on this point is so great that I am compelled to make a few remarks.

The hypothesis of "innate ideas" in the sense of innate knowledge, was already refuted by Leibnitz and Kant corrected it once and for all by saying that only the Laws or norms of knowledge are innate, but not its content. Laws or *a priori* concepts are not themselves knowledge but Principles of knowledge of real objects, because the very essence of the thought (the idea) implies the relation to real objects. But, we are very disposed to confuse the two things and this confusion is the main source of all the objections to the doctrine of innate Laws of thought. Locke [John Locke (1632-1704),] in his "*Essay*", regarded the certainty of *the Principle of identity* and the Principle of contradiction as an acquired certainty because children and idiots do not know these Principles; the opponents of the *a priori*, even today, do the same. They always think that nothing can be believed of objects without being conscious of this belief. Yet, Locke himself at the beginning of his "*Essay*", well said: "The ways of knowing look like eyes, in that while they allow to see and perceive all other things, they

do not have a notion of themselves, so much that it takes great skill and perseverance to put them at some distance and make them an object." It is, thus, according to the accurate remark of Reid, "a first Principle, that an effect occurs in us

-181- though we cannot take it into consideration and make an object of it. "

But, the effect of a Law of thought consists precisely in that we must believe in objects.

The fact that we are naturally led to believe something of objects offers no more difficulty than the fact of any other relation between us and objects.

The singular opposition that is brought to the hypothesis of such a belief comes from the confusion mentioned earlier, and also from the fear of the abuse that is made of the theory of *a priori* Laws of thought. This abuse has been extreme, indeed, and refusal to associate with it is very natural. However, we must not reject the good with the bad. The abuse of a doctrine is not a reason to condemn it if it rests on good proofs.

We will judge the matter. One wonders on what grounds the doctrine of the *a priori* Laws of mind is founded, or, in other words, how we can convince ourselves of the *a priori* origin of certain ways of seeing.

It was believed we possessed a certain criterion of these ways of seeing in their necessity, in that there are ways of seeing the opposite of which is absolutely impossible to conceive.

But, as we know, serious objections were raised against the value of that criterion. It was shown that associations between ideas could become strong enough to actually become, in most men, a necessity of thinking. Thus, many false opinions have been taken for truth. The very supporters of the *a priori* are forced to grant that this criterion is uncertain. For example, Lange (*Hist. of materialism*, 1st ed., II, p. 31) says that in the discovery of *a priori* Principles, we can achieve "likelihood" only. The certainty of only likely apodictic Principles would be the most obvious contradiction. The doctrine of the *a priori* and Rationalism

-182- would be in bad condition if they had no other foundation than the feeling of the need of some Principles. It is a necessity for us to know in perception a world of external, unconditioned, objects, and

we know, however, with certainty, that this world exclusively consists of sensations.

It is a remarkable fact that two champions of Empiricism, Spencer, and Lewes [George Henry Lewes (1817-1878),] have entered the fray for the criterion of necessity against Mill, who had amply and very clearly showed its insufficiency. It is interesting to follow the discussion which arose between these Philosophers (1). All three, likewise, admit that experience, that is to say, the immutability and uniformity of experience, is the only real foundation of general knowledge, even the necessary knowledge. But, if the observed uniformity of experience is the real foundation of certainty, says Mill with good reason, what use do we have of another Principle which must rest on the foundation already indicated and depends on it for all its value? No, say Spencer and Lewes, certainty only occurs when the uniformity of experience is felt as necessary. Thus, the whole debate boils down to this: Mill claims that certainty is based on experience considered by reason; Spencer and Lewes want it to be based on experience confusely felt. I need not say on which side the truth lies.

Yet, Spencer still brings a new argument in favor of the criterion of necessity. According to him, we inherit the experiences of our ancestors, not only through their writings and traditions they left behind, but also by direct physiological pathways in our body organization.

(1) V. Stuart Mill, *Logic*, I, 294. – Spencer, *Princ. of Psych.*, 11, 406. Lewes, *History of Philosophy*, I, p. LXIX.

-183- All the experiences of previous generations are somehow accumulated in our body by physical legacy in the form of predispositions to certain ways of thinking about things. The views we precisely feel are necessary manifesting the result which earlier generations reached and are, therefore, far more certain than those we have acquired through our own experience. They must claim an apodictic certainty.

If Mill has known this argumentation, he will have found it pleasant. Because, it would not have escaped his clear mind how wrong it is to base on such a weak argument the certainty of apodictic Principles. In fact, just considering the recognition of the great Law of causality, it is obvious that the non-scientific experiments of previous

generations on the causal relation of things, even if they had lasted for hundreds of thousands of centuries do not count against scientific experiments of the last two or three centuries, that we have not inherited but were taught. Despite so many supposedly inherited experiences, the belief in the constant uniformity of the course of nature is very recent and is not yet prevalent everywhere.

The doctrine that *a priori* judgments are physiologically inherited from previous generations, which passes for a high doctrine reconciling Rationalism with Empiricism, is in truth inferior to the clear and loyal Empiricism. And it does not come close, on the other hand, to Rationalism; because it is precisely the knowledge of this fact that no experience can guarantee the value without exception of a general judgment that led to the hypothesis of primitive Principles or certain in themselves.

The true test of *a priori* origin of general knowledge consists in that it is not only necessary

-184- and certain in itself, but also in that its Principles or its elements are, in fact and obviously, contained in no experience and do not agree with the empirical data.

So, I showed in Book One that our knowledge of the bodies contains an element that is found in no experience and cannot be derived from any, namely the concept of the unconditioned. I showed, in addition, in this Book Two that in the logical Principles of identity and contradiction is precisely expressed this concept of the true, unconditioned essence of things which could never come from experience, because the data of experience will never agree with it, but guarantee its objective value by this same non-agreement. If any Principle is evident of itself and immediately certain and necessary, it is the *Principle of identity*, and yet we see the possibility, not of the opposite of that Principle, but of something that does not fit with it; moreover, we see that no data from experience agrees with it. It would be of little consequence for the certainty of the *Principle of identity* and *a priori* Principles in general if, to verify it, we had only the simple impossibility to think otherwise.

As I have amply demonstrated the *a priori* origin of the concept expressed in the two logical Principles, I do not have to say much more about the *how* of the matter; but, this concept is the only primitive Law of thought. All other Principles or *a priori* concepts are, as I will show

in the next chapter, derivatives of this one (1). So, I consider resolved the issue of whether the Laws of knowledge are *a priori*.

(1) With the exception of the Principles of Geometry [*i.e.*, Mathematics] and the intuition of space which constitute its background; but we can clearly prove, as I will do in Part Two, that their elements are not absolutely contained only in the data of experience and if it agrees in fact, it does not logically agree with them .

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§ 2. There can be only one *a priori* concept.

An *a priori* concept is a Principle of affirmation concerning objects. Now, a Principle, as Herbart has accurately noticed (*Intro. to Phil.*, p. 8), must have two qualities: "First it must stand by itself or be originally certain; then it must be able to communicate its certainty to something else, outside of itself." Such a Law or such a Principle of knowledge must, if it has for consciousness a determined expression, find this expression in a synthetic formula. From an analytical Principle, indeed, one cannot deduce anything; it cannot be a premise to a syllogism nor, consequently, as Principle of knowledge. But, a synthetic formula expresses the relation between two concepts. Kant, as we know, has made of this question: how synthetic, *a priori*, judgments are possible? the capital issue in Philosophy, and he answers: The union of *a priori* concepts is an external union, effected by a particular provision of the faculty of knowing. This doctrine of Kant is absolutely unsustainable. If we admit *a priori* concepts, not only is there no difficulty to admit that there is in them a logical, internal, union, but we must additionally prove that of necessity it is so; otherwise, the whole theory is of no value.

I only know the following kinds of relations between concepts: 1. Agreement and non-agreement; 2. Genera and species relation; 3. Relation of subject and predicate; 4. Relation of a concept to its specifications, and finally 5. Relation of a concept to its consequences.

The first three do not need an explanation. The other two, on the contrary, need a few comments.

If we consider a concept in relations that are not

-186- outside of its sphere, the judgments we make are simple specifications of this concept. If, conversely, we consider a concept in its relation to data or concepts that are entirely out of its own sphere,

the judgments we make are consequences. For example, if by "straight line" we mean that which always follows the same direction, that two points are sufficient to determine it is a specification of the concept of this line. Without two points, in general, one cannot conceive a direction; but it is perfectly clear that to be determined a straight line does not need more than two points; because, it is precisely the same, by definition, between the two points and beyond. To confirm it, there is no need to add anything to the concept of straight line. But, if we consider a straight line in relation to another intersecting it, the judgment we make here, for instance that the angles in opposition at their summit are equal two by two, is a consequence of the straight line concept; for, there is there a moment not contained in this concept, namely that two lines intersect. To express this difference in general terms: in specification, we do not exceed the given concept, but we change the perspective under which it was considered. Conversely, by consequence, we really go beyond the concept of the given data, to consider it in relation to another.

The specifications of a concept are expressed in propositions which must be properly called analytical and are not pure tautologies (identical) and do not express the connection of two given data (synthetic).

Conversely, the consequences of a concept will necessarily be expressed in synthetic propositions, because they represent a relation between two given data.

To be able, now, to adequately answer our question of the connection between *a priori* concepts, we must first

-187- know whether there are several primitive *a priori* concepts, or if there is only one.

If there were several primitive concepts and, hence, independent of one another, they obviously would sustain no logical mutual relation, and one should accept an external, mechanical, mixing, as Kant did. But, we have already acknowledged that it was impossible and we must admit, therefore, that there is only one first *a priori* concept.

Indeed, as the concepts that we have *a priori* of reality are necessarily general, since only experience gives the particular, or rather because the very fact for the particular to be given constitutes experience, there cannot be several *a priori* concepts of similar generalities. Otherwise, they would not refer to the same reality, but to different realities, which

is absolutely impossible to admit for *a priori* concepts. If we had *a priori* several concepts of different realities, this would mean an *a priori* experience, which is an obvious absurdity. If the *a priori* concepts must be internally in mutual, logical, connection, they also relate to one single reality; otherwise, they could not mingle and unite in one consciousness. But, then, there is obviously at the bottom of all these concepts one single, more general, concept of this reality.

The other *a priori* concepts either represent different sides of the knowledge and understanding of the reality in this most general concept of all and are, then, mere specifications of the latter, or they are consequences of it.

So, we easily understand how unacceptable is, for example, the hypothesis that the concept of causality is primitive and cannot be derived from higher, more general concepts. Causality means that everything that is born or happens

-188- is related to something that precedes it, its antecedent. However, it will naturally be self-evident that we can know nothing of the connection of successives before we have an idea of their succession, that the concept of causality depends on the concept of succession or becoming, or presuppose them. If now the concepts of succession and causation are logically linked, this can be only in two ways: 1. Either, the fact that anything that happens is linked to a history is immediately involved in the concept of succession or becoming, - then we would have an analytical proposition, and the concept of causality would be a specification of the concept of becoming in general - or 2. The concept of causality is not immediately in the concept of successives, but results from the addition of a *third* guaranteed concept – then, this is a consequence of the concept of successives; then, it presents itself as the conclusion of a syllogism of which the concept of successives or becoming is a premise. But, if we cannot prove either the one or the other, if from the essence of successives we cannot establish, immediately or mediately (by adding another premise), that all that is born must be related to an antecedent, then the hypothesis of an *a priori* concept of causality is an empty, unfounded one and agreeable only to a certain laziness of mind.

§ 3. The proposition that expresses the primitive *a priori* concept must be both identical and synthetic.

If there is, absolutely, only one *a priori* concept, the first, the most general of all, from which all others must be deduced, it must be expressed in an immediately certain synthetic proposition; but how can a single concept be expressed by a synthetic proposition? And can a synthetic proposition be immediately certain?

These two questions will be resolved at the same time and

-189- our task would be completed if we would find a proposition both synthetic and identical. For, only such a proposition could unite fecundity in consequences to immediate certainty and serve at the same time of first, supreme, *a priori* Principle.

Indeed, there is in fact such a Principle, and it is none other than the *Principle of identity*. It must be accurately expressed, as I have already noted, as follows:

In itself, as to its essence, an object is identical to itself.

This proposition is a synthetic judgment and at the same time identical. As it is identical, it is self-evident and, therefore, it is often mistaken for an insignificant tautology.

As synthetic, it is a Principle of knowledge and, therefore, it is often mistaken for a generalization of experience. But, it is neither a tautology nor an empirical generalization; it expresses the primitive, not derived, concept we *a priori* have of the essence of reality, whose truth immediately shines to our consciousness, as we have already amply shown. However, it remains to show how a single proposition can be both identical and synthetic.

If all we know were, without exception, entirely consistent with the *Principle of identity*, that is to say, perfectly identical to itself, - this Principle would simply be identical. For, the subject and the attribute would not express two concepts, but a single concept that could never be broken down by abstraction. We would, then, be unable, even as a test, to conceive anything that were not identical to itself. Moreover, not only the *Principle of identity* would be identical, but there would not be, in general, other propositions than identical ones.

For, the essence of that which is perfectly identical to itself

-190- cannot be expressed but by such propositions, as I already remarked once – but, it is not the case; quite the opposite is true. Our experience offers us absolutely nothing that is perfectly identical to

itself, or quite consistent with the *Principle of identity*. Everywhere, in fact, experience shows us change and, in general, the union of the diverse. The obvious consequence is that the concept of reality that we form by experience and that we abstract does not imply the identity of the real with itself and can be separated from it in thought, so that the two concepts of identity and reality stand out as different concepts. Thus, the *Principle of identity* which expresses the binding of the identical and the real, manifestly appears as a synthetic Principle.

In itself, in its inner meaning, that is to say simply considered in relation to the *a priori* concept it expresses, the *Principle of identity* is an identical Principle. For, the *a priori* concept contains in itself no relation to any experience that differs from it, in which and by which only a diversity of concepts occurs and manifests. But, as soon as the *a priori* concept of the object comes in contact with the data of experience which do not agree with it, what precisely happens in the act of thinking and knowing, reveals it as a fecund Principle or a Law of knowledge, and the *Principle of identity* that expresses it appears as a synthetic Principle from which flow many important and necessary consequences. Thus, the *a priori* concept of the object, as I have shown and as I will show again, is the foundation of our knowledge of external, unconditioned, things or substances that may never occur in experience and, also, as the foundation of our knowledge of successives and our awareness of the difference between the true and the false in general. This concept also contains, as

-191- we will see in the next book, the rational basis of our belief in the value of induction.

Thus, in the *Principle of identity*, we find the supreme *a priori* Principle of all thought and of all knowledge.

But, we must consider and use it above all as the supreme Principle of philosophical research. For, this Principle, only which makes of experience itself what it is, can give us the possibility and the means to bypass experience in consciousness.

§ 4. Of some derived concepts.

Experience allows us to grasp reality from different perspectives, and among the various concepts that are thus awakened in us, some reveal themselves as implicated in this Law of thought, as mere specifications: others, on the contrary, as consequences of the *a priori* concept of the object. That is what we shall briefly explain here.

Thus, the concept of unity, for example, is not a consequence but a simple specification of the concept of being identical to itself. It is precisely, in effect, and only what is identical to itself that is one. The essence of unity as such consists solely in this determination to be identical. We, therefore, have no need to leave the concept of identity with itself to find one or a unit. Experience allows us to only conceive reality in quantitative terms, what the *a priori* concept of the object could not do alone; because, we cannot of course know anything *a priori* of a multiplicity or a unit as specifically contrary the multiplicity.

Likewise, the concept of the unconditioned, of that which exists by itself, or of substance, is a simple specification of the concept of identity to itself, that is to say, it is immediately

-192- contained. We do not need to leave the concept of the identical to see that it is unconditioned, that it exists by itself, in other words that, with regards to its existence and its essence, it does not depend on anything else. Dependence, indeed, *as regards* something else involves a foreign element and also an internal difference in what depends, while the identity of a thing with itself means, rather, the absence of any internal difference. A thing that has a real self, that is to say a really true essence not borrowed from outside and independent of external conditions, is identical to itself. The identity with itself obviously removes any connection with anything or excludes it.

As regards the Principle of permanence of the substance or the unconditioned in time, it can, as much as the *Principle of identity* itself, have an analytical sense as well as a synthetic sense. It is analytical when it expresses simply the result of an analysis of the concept; it is synthetic, on the contrary, when it is understood as an affirmation with respect to the nature of real objects. The concept of substance (the unconditioned) belongs, as we have seen, to the supreme concept of identity with itself, as a simple specification of the latter, and the Principle that "what is identical to itself does not change" is simply analytical, because to observe it one does not need to get out of the sphere of pure concepts. But, when it is used to say that "the true, unconditioned, being of things is by opposition to their empirical way of being, which is subject to permanent, immutable, change," this affirmation is a synthetic judgment because one leaves the sphere of pure concepts to say something of the nature of things, which would

be impossible without the intervention of empirical data. In this sense, the Principle of the permanence of substances is not

-193- a simple specification of the concept expressed by the concept of identity but is a consequence of it.

Likewise, the concept of causality is certainly not a simple specification of our *a priori* concept of the object; it can be attached to it only as a consequence. Indeed, the very fact that causality applies only to successives, and that the *a priori* concept of the object has nothing to do with successions, it does not contain any indication of causality, either. The Law of causality comes as the conclusion of a syllogism in which the *a priori* concept of reality only constitutes one premise, while the other is formed by the concept of succession or change that experience alone provides us .

There are still other consequences to be deduced from the *a priori* Principle of the object, expressed by the *Principle of identity*. But, the above is enough to show how it is possible that the *Principle of identity*, in itself, is simply identical while, compared to experience it appears as synthetic and serves as basis for other synthetic Principles; how it can be both an immediate and certain Principle and a positive Principle of knowledge. To explain the possibility of synthetic *a priori* Principles, we do not need to resort to a so unnatural and so arbitrary theory as Kant's that the *a priori* concepts, to form those Principles, are linked together from outside and mechanically by a special provision of the faculty of knowing. This possibility is deduced for us from the logical essence of concepts. Only the *Principle of identity* is pure *a priori*; the other synthetic Principles are born of its contact with the data of experience and its application to this data.

Kant clearly saw that from mere *a priori* concepts nothing could obtain. But he found no other way to establish this than to deny the objective value of *a priori* concepts,

-194- not to consider them as valid for the understanding of reality and negate them the power to logically unite. But, we see that this theory is not only false but also useless. From simple *a priori* concepts nothing can obtain, in fact, because there is only one single *a priori* concept. There would be no synthetic *a priori* Principle if experience did not come and provide a concept of reality other than the one we have *a priori*. It is only under the influence of experience that the

Principle of identity, which expresses our *a priori* concept, changes into a synthetic ingredient that may serve as a Principle of knowledge. The fruitfulness of this Principle occurs, therefore, only in favor of experience and one could not derive from it a knowledge of the unconditioned which is beyond experience, in a word a Metaphysics.



BOOK THREE

MAJOR CONSEQUENCES

Chapter 1

The causal concept

§ I. Review of some theories of causation.

The opinions on the origin of the concept of causality are very opposed. Some believe, with Hume, that this exclusively empirical concept is obtained by and based upon induction; others, however, admit that it has its *a priori* foundation in the nature of the knowing subject.

This last opinion has been further understood in three different ways: 1. The concept of causality is immediately certain, obvious by itself and needs no proof. 2. Either we actually seek to deduce it from another concept, to provide, in the words of Kant, "a dogmatic evidence." 3. Or, finally, following the method of Kant, we consider this concept as simply a necessary experience, as an essential part of the innate mechanism of knowledge, which only makes possible an experience in general but has, outside of the subject, no objective value.

The latter doctrine, Kant's, is absolutely inad-

-196- missible. It is wrong, in fact, that the concept of causality is a simple cog in the mechanism of knowledge, without objective value. We cannot sustain such affirmation except in Kant's assumption that objects do not exist outside of our ideas, a hypothesis no reasonable person is ready to offer. Because, even assuming that there is nothing else, people are, at least, objects of knowledge to each other which are different from their respective ideas and exist outside of them. Furthermore, I think I have proved in Part One of this book that the sensations are real objects, different from the knowledge we have of them. And these sensations are subject to the Law of causality, so that the knowledge of their causal relationships enables us to anticipate and predict their appearance, which is precisely the goal of the sciences of nature. Moreover, ideas themselves are really objects

when viewed in their true aspect, as phenomena in reality and what is good for them, in this view, has precisely for that reason an objective value. As, on the other hand, the ideas themselves are successive, they are also subject to objective causal Laws, including those of association, which differ *toto genere* from the *a priori* Laws of knowledge.

The hypothesis that the Principle of causality is evident of itself needs no refutation. How can it be self-evident that any change must have a cause? This is without doubt synthetic, as Kant has sufficiently demonstrated. How would such a Principle ever be evident?

How is it possible, in the concept of what changes are, to immediately discover a relation to something external to it (1)?

(1) What is remarkable, here, is that we find the affirmation or at least the assumption of the evidence of the Principle of causality especially among the writers who call themselves Empiricists. Locke began in the chapter of his *Essay* where he deals with the knowledge of God. Herbart also admits as obvious that a causeless change is inconceivable and impossible (without a disorder from the outside). Taine (*French Philosophers*, p. 69) states this in a more precise manner: "It would be absurd or contradictory that the resolution that contracted the muscle a first time, could not contract it a second time, all the circumstances remaining the same ... It would be absurd that a Law of nature being given, this same Law were denied." Yes, indeed, it were obvious that there can be no change without cause. Finally, Lewes says in his *History of Philosophy* (Proleg., p. CV-CVI): "To affirm that what has occurred will occur again, will always occur, is equivalent to declare that under exactly similar circumstances results exactly alike will occur. A is A and A is A forever... If we add that there is no proof of the maintenance of the observed order, either we deny that A is A, or we tacitly change the proposition, and say: If A becomes B, it will not be A anymore; because conditions remaining the same, the order necessarily remains the same; if conditions change, the order will necessarily change with them." As we can see, the Principle: no change without a cause has the same evidence as the Principle A is A, and has the same signification. All these Philosophers do clearly feel that the Principle of causality has a very narrow logical relation with that of identity, which is obvious. It is this relationship that we must finally show.

-197- These two suppositions set aside, it remains to decide between the other two, namely that the Principle of causality is a mere given of experience or has its foundation in the nature of thought, not first, however, but derived.

Now, I say that the Principle of causality is neither purely *a priori*, nor purely empirical, but is the consequence of two premises, one of which is the first concept *a priori* of the very essence of things expressed in the logical Principles of identity and contradiction, of which the other is the fact of change that can only be known by experience. It is for having disregarded this truth, if I am not mistaken, that all deductions and all demonstrations of the Law of causality are until now so imperfect and why what is to be proved is always implicitly assumed. The insufficiency of these demonstrations, Reid (*Essays on the intellectual faculties*, p. 347-348) and Kant (*Crit. Pure R.*, p. 608) had already observed as a generally recognized fact and since then the question has not advanced one step.

-198- Before I try to prove the derivation of the Principle of causality, I must say something about how it is viewed by various thinkers.

We know the masterly analysis of Hume (1) in his "*Essays on Human Understanding*." Here is, as we know, the result he obtained: A connection of things and phenomena can be neither certain *a priori* nor given by experience.

All we know is a constant coincidence (conjunction) of certain facts. But, the association of ideas, the habit of always representing these facts together, suggests a connection of these facts and leads us to believe they will still occur together in the future. Hume explains this belief as a mere subjective fact, a sense keener than usual (p. 46-47), and shows that it has no objective foundation. So, is the value of the Principle of causality and any induction simultaneously held in doubt.

For, if induction has no other basis than a habit of our thought, it cannot have another value either, and it obviously does not extend outside the subject: our habits can do nothing in fact and change anything in the nature of things.

The new British Empiricists do not imitate Hume in the sincerity and rigor of his thinking (2). They are not at all willing to abandon the value of the induction. And they are right. All Science, in fact, would suddenly lose its own foundation and life itself would be impossible; all the time, we go by inductive inference from past to present and future, and

(1) In his "*Essay on the relation of cause and effect*," Brown has addressed this issue with more developments than Hume and also showed that experience provides no foundation for induction. He admits that the belief in causality is a primitive Law of thought.

(2) Stuart Mill, in a note on the book by J. Mill, *Analysis*, etc., I, p. 407, says: If the belief is only an indivisible association, it is a matter of habit or accident; it is not a reason.

-199- we believe in it with all our heart if we are to avoid the greatest inconvenience or even dangers. But, the thinkers in question do not want to renounce their empirical hypotheses either and, then, they silence or they openly deny the impotence of these hypotheses to constitute a strong foundation for induction and Science, to have an objective value. The most serious Empiricist of our time, John Stuart Mill, is also one that comes closest to Hume.

He avoids speaking of a connection between phenomena. He does not agree that there is any necessity in their succession or coexistence. However, he wrote an inductive logic, and he also unreservedly believes in induction. But, what is induction? This is obviously the conclusion that things and phenomena which have always accompanied each other in known and verified cases, will so accompany in the same manner in other, not yet verified, cases.

Yet, if we say: Something will happen, or something must happen are two very different expressions of the same statement; the latter involves a link and necessity.

Certain weaker Thinkers are on this point so obscure and confused, they raise such a cloud of errors, that in this mass of contradictions it takes courage to discover the particular misunderstanding in which each of them was enmeshed. Regarding German Empiricists, they are still mostly in the state of innocence, that is to say they have not yet fallen, like Hume, from the bliss which all Empiricists enjoy who are sure of themselves. They have not yet penetrated the meaning of his explanations and arguments and, therefore, they do not consider it necessary to vigorously fight them or to find in the data of experience a solid basis for induction. Remember, for example, the naive statement of Herbart: "We must take as a given the binding of

-200- phenomena, although we cannot conceive how it is given (1)." Hume's research on the Principle of causality has brought, as we know, the *Critique* of Kant. There is, therefore, great interest in comparing Kant's doctrine of causality with that of Hume, which it opposes as a

better and deeper explanation. Hume has proved, in the most luminous and most decisive manner, that experience alone provides no foundation for induction, to our belief in its value. But this belief is invincible and no one will concede that it relies solely on a subjective habit. For to take away from it any objective value would mean, precisely, to lose and abandon any belief, and this is impossible. We must then answer the question: Where does our certainty of a connection of phenomena come from?

Kant's *Critique of Pure Reason*, at least the first part, can be considered an attempt to solve it.

Unfortunately, Kant answered by a simple hypothesis, that of certain Laws for the connection of phenomena in the subject itself. He did not give other reasons than the affirmation that without such Laws binding phenomena were inexplicable. But, I do not have to examine, here, Kant's doctrine in general; I deal only with the theory of causality.

First, according to Kant, the category of cause or causality has in itself nothing to do with changes and successions. "For the concept of cause, I find nothing else in the pure category, except that it is such that it allows the existence of something else" (*Crit.*, p. 254). The application to given cases is made by means of the causal scheme. "It consists in

(1) *Introd. to Phil.*, p. 126. At the same time, Herbart is not afraid to call Hume "a *Bel Esprit*—a beautiful mind - who imagined to solve the most serious questions in conversational language."

-201- a succession of the diverse as it is subject to a Law." (*Id.*, p. 173). Other rationalists simply say: "The human thought or human reason, contains an innate disposition to subordinate all changes to causes," and that has at least a reasonable sense. But, what meaning can there be in the hypothesis of an *a priori* concept of something of which emerges something else? That would be nothing more than an idea of the possibility of consequences in general, and how could such an idea be first? But, beside this inconceivable concept, there must still be the "scheme" of the succession of the diverse, as it is subject to a rule, and, be it noted, in a subject that still can know nothing of successions. In addition, the category and the scheme must have no logical connection, but just be bound by the mechanism of thought, which must produce the same result as the Rationalists ordinarily affirm, namely the need to submit all changes to causes. To find these

Kantian inventions conceivable, we must always remember that Kant represented the faculties of knowing as a simple machine with no logical connection. The possibility of experience is for him the fundamental goal, the fundamental Law of this machine. This is also the goal behind the invention of schemes that do not mean anything, except that the basic concepts of the understanding do not refer at all to reality and the knowledge of reality, but exclusively to a certain order and a certain bond of the content that appears in consciousness, and that they serve no other purpose. Following Kant, indeed, sensations occur randomly (*Crit. pure R.*, p. 198); the understanding is what binds them to each other and in fact makes it a system of nature according to empirical Laws, by means of its categories and its other devices *a priori*.

-202- Let us see, now, how, according to the doctrine of Kant, the category of causality, with the help of its scheme, contributes to the possibility and implementation of experience.

We find this theory in a lengthy analysis of the *Critique* under the title of *Second Analogy of Experience*.

Here is its meaning in short: We can know nothing apart from perception. But, all perceptions are always successive. Hence, I cannot know by experience only, if it is in the objects or only in my perception that succession occurs. A knowable object is nothing but a *total* of my perceptions which "cannot be represented as an object separate of these perceptions unless it is subject to a rule that distinguishes it from any other prehension and renders necessary a way to link the diverse." (*Critique*, p. 210). The objective changes are, therefore, not only unknowable; they are not possible, in general, without a rule of the understanding, which prescribes what is to happen to me in the object and what is to follow. "By the fact that the successive states are known, the relationship between two states should be thought so that it is determined thus necessarily which must come first, which second, and always in the same order" (*Id.*, p. 208). This literally means: By the very fact that I know a succession as objective, I must determine it in advance; and this miracle must be achieved by the *a priori* concept of causality. It is too hard, though, that the general necessity or disposition to submit changes to causes, determines in particular cases what should be cause and effect, what must precede and what must follow, the blow death, or death the blow, digestion the entry of food or *vice versa*, etc. But, Kant was not to be

disturbed by the strangeness of this doctrine; he returns to it *con amore*, giving it different forms, like these propo-

-203- sitions: 'In the synthesis of phenomena, the diversity of ideas is always successive. No objects are represented...but as soon as I perceive or I suspect that in this suite there is a relation to the previous state, the idea follows on after a rule, then something arises as an event, as something that happens, that is to say, I recognize an object.' (*Id.*, p. 214, 215). This "I perceive or I suspect" is delicious; but it seems to the common reason, not that we perceive, that we suspect the succession of relations, but that we conclude them by induction of their constant succession. It would obviously be superfluous to criticize longer such a doctrine. I leave it out, therefore, and I can only warn that I will discuss in Part Two the question of how objective successions are distinguished from subjective successions of our perceptions.

I cannot discuss, here, the various ways of conceiving the Principle of causality; this would be the means to confuse rather than clarify the issue. I come, therefore, to the derivation of this Principle. This is to answer the question: Whence the certainty of the Principle that any change has a cause?

§ 2. Derivation of the Principle of causality.

At the beginning of this chapter, I have already shown that two views are possible on the origin of the Principle of causality. Either it comes from experience or it has a foundation *a priori*. But, it is not evident of itself in any case and as to its objective value, it is above any questioning.

To deny it is to deny all experience. But, experience alone, as has been already remarked, cannot guarantee any connection of phenomena, much less the invariability of a connection, that is to say, precisely, the absolute value of the Law of causality.

Until we find against Hume's argumentation better objections than we already know,

-204- it can be considered as valid. Whoever examines the issue with the attention it deserves, must necessarily recognize that, in general, well-founded objections are not to be feared. I will not repeat what I said in this chapter and in the third, about it. So, if our faith in the value

of the Principle of causality has a rational basis, it must also be an *a priori* foundation, and it only remains for us to prove it.

This foundation, as I believe and as I hope to prove is nothing else than the *a priori* concept that we have of the true, unconditioned, nature of things and which finds expression in the logical Principle of identity .

There is nothing more primitive but the certainty that every object is identical to itself, in its own being. But, from this Principle immediately and rigorously follows the certainty of the Principle of causality.

You must grant me, I hope, that identity to itself and change are two different concepts. Change means, strictly speaking, non-*identity* to itself, or non-agreement with itself in what changes. What changes is not exactly similar to itself. Finally, change is the only way the non-identity of being with itself can be expressed in intuition. Any other manner would already be a contradiction and consequently entail an impossibility. But, two different determinations are a contradiction when they relate to a single object from the same point of view, such as the affirmation of a square circle. So, if the identity to itself must be affirmed of an object or be attributed to it, change must be totally excluded or denied to this object, and (conversely) the identity to itself must be denied to that which changes *per se*.

Now, it is certain, *a priori*, that, in itself, as to its true being,

-205- any object is identical to itself, and it follows immediately that any change is foreign to the true being of things and should never be met in it. (1)

But, to say that any change is foreign to the unconditioned being of things is to say, of course, that any change is conditioned, and this is precisely what is expressed by the Principle of causality: no change without a cause.

We may as well enunciate the logical connection between the Principle of causality and our fundamental Law of thought as follows:

Change is the union of the diverse. If, for example, a green object turns red, it unites two different qualities and this from one point of view, that of color, but only in a successive manner. But, the negative expression of our supreme Law of thought, the Principle of contradiction in its full extent, reads as follows, as we know, "An unconditioned union of the diverse is impossible." It is, therefore,

certain, *a priori*, that no unconditioned change, that is to say without cause, can occur. So, it is absolutely impossible to conceive that from a state of rest (*i.e.*, the state of identity to itself that is true to the being of things *per se*) a change can be produced. From this, alone, that a change occurs, we infer another change had to precede, making it possible, and so on in indefinite regression.

This fact, precisely, that any change implies an indefinite series without beginning of prior changes undoubtedly shows what is the true meaning and what is the origin of the Principle of causality, namely the impossibility to think that a change can come out of the true, unconditioned being of things. Hence, the Principle of causality which

(1) See p. 166; that concerned, then, the nature of the change itself; this, now, is its *a priori* certainty.

-206- forces us to assign a cause to any particular change excludes at the same time any hypothesis of an unconditioned first cause of changes.

But, we shall discuss this later; here, we use it just to clear things up, I mean the logical relationship not only between the Law of thought expressed by the Principles of identity and contradiction and the Principle of causality, but also between this Principle and the concept of substance, the Principle of the permanence of substance and of the primitive necessity to think that makes us take all objects for substances (by which, as discussed in Part Two, all our experience is conditioned).

A substance is an object that has its own being, not borrowed from outside and independent of any condition. But, the Principle of the permanence of substance precisely expresses the same thought that the Principle of causality, that unconditioned being and change are mutually exclusive. Here is, in fact, the Principle of the permanence of substance: The substance, the unconditioned, is in itself permanent, immutable and the Principle of causality reads: No change is unconditioned, independent of causes. They have both the same logical basis, namely the certainty that change is foreign to the true, unconditioned, being of things (1).

And the last foundation of this certainty is in the idea, self-evident of itself, that an object in its true, unconditioned, being,

(1) By change, as we have shown above, a thing denies itself, in fact; proof that it has no true being, that it has no internal consistency. In a real, normal, substance, corresponding to our concept, which is then really identical and simple, change is impossible and inconceivable. If a simple thing could change, become other than it is, it would disappear, it would make room for a new thing; because it is indivisible. Only the compounded may change, because the parts can assume new relationships with each other or be, some at least, replaced by others. Only compounds are conditioned, without exception.

-207- contains no differences; that, in the true, unconditioned being of things, the union of the diverse is neither possible nor conceivable, as we have amply explained in Book Two.

If an unconditioned and simultaneous union of the diverse is inconceivable, successive, unconditioned union of the diverse, that is to say a change without cause, is even more inconceivable. If an object in its own being cannot be diverse (contain a diversity), it also cannot contain in itself a reason to change, ever. For example, it is inconceivable that a square object be round, and for the same reason that a square object, existing itself without cause, be round; otherwise, roundness should already be in its own being. Precisely because an unconditioned union of the diverse is inconceivable to us in general, we have the certainty that all simultaneous composition of the diverse, as well as all successive union of diversity, that is, any change, is conditioned and depends on a cause.

Precisely because, according to our Law of thought, any internal diversity is foreign to the true being of a thing in itself, a simple substance only constitutes for us a real object, and the permanence of such a substance the only normal way to exist; and, conversely, any diversity and any change in a thing is a symptom of external and foreign influences, the result of external causes and conditions. This is the reason that compels us to know as unconditioned objects, simple and permanent, as substances, the objects of experience - our self first, and on the other hand the contents of sensations - and to attribute all changes of an empirical object to a cause outside of it, as will be shown in Part Two.

We also see from this why there is a general Law of successive phenomena, while none of the simultaneous phenomena.

-208- The reason is that there cannot exist an internal difference of a thing in relation to itself, unless in the form of change, that change is

the only possible intuitive sign of non-identity to itself, and consequently of the fact of being conditioned. As for the simultaneous differences in things, or, in other words, for the simultaneous union of phenomena - and all empirical objects are a *complexus*, a compound of simultaneous phenomena - the fact is that what we see in it does not appear in the common consciousness as a compound of the diverse but as an object.

Hence, we, ourselves, for example, despite the complexity of our being, appear to ourselves as a simple, indivisible, person. Similarly, for the common consciousness, a body we see, feel, touch, etc., at the same time, does not appear to us as a compound of qualities, but as a mere object, present, indivisible in this diversity of qualities. This simultaneous diversity in empirical objects may escape the unprepared consciousness, because it does not imply a logical, immediate, contradiction, the unconditioned union of the diverse and it is not a difference of a thing from itself. If, on the contrary, an object changes, if from round it becomes square, consciousness - even an unthinking consciousness - cannot ignore a difference occurs in the object, in relation to itself, in relation to its first manner of being, something that cannot take place in the true being of a thing. Hence, even the unthinking consciousness is forced to see in any change in an object the effect of a cause unrelated to this object. Where a change occurs, we know it is, in itself - apart from the particular nature of the change - a sign of the non-identity of this object to itself and consequently its conditioned nature. The Law of changes is, therefore, quite general, regardless of the difference of the cases that occur because

-209- it specifically relates to an element of common change as such in all cases.

If the Principle of causality were known only by induction from experience, by the fact that man has found a cause to most changes, it would have no more generality and value than the proposition: All bodies are heavy, and just as much; because a weightless body has not been met yet, while there are facts, phenomena, for which we do not know the specific causes. But, the Law of causality still has the peculiarity that its constancy cannot be absolutely guaranteed by experience. Indeed, as I have already stated in Book One, if it were conceivable that a general phenomenon could occur without cause, we should expect such changes every moment and in every place. No conditions or no previous state could prevent the production of such

changes, precisely because they would be independent of all conditions. With the certainty of the Law of causality would be undermined the value of any induction in general. And, indeed, what true, rational, motive, do we have to rely on the universality of the course of nature, if there is no guarantee that a change cannot occur without cause and thus destroy any link and any resemblance to the prior and subsequent? The simple experience of the previous immutability of the course of nature can obviously never guarantee that.

I do not want to make more than a few remarks on the proof of the Law of causality as presented. This proof is not dogmatic in the Kantian sense, because it is not derived from pure *a priori* concepts. But, it is nevertheless a real proof and has as its starting point the *a priori* concept that we have of the true, unconditioned being of things. By itself, it is true, this concept does not have any relation with any change. The Principle - "In itself any object

-210- is identical to itself" - says nothing of changes. But, as soon as it approaches the fact of change that experience brings to our attention, so soon the consequence is drawn from these two premises that any change is foreign to the true being of things and is thus conditioned.

We sometimes imagine that if an empirical element is taken as a premise in a demonstration, the whole demonstration is empirical. That is completely inaccurate. When, in a deduction, empirical and *a priori* elements are combined together, the *a priori* elements are the determining and fecund Principle giving the whole deduction its character. The empirical is the material that receives, somehow, the consequences without producing them. Thus, the empirical fact of change, for instance, is a simple object that awaits what we shall affirm. If we were to draw consequences about the change, only from the circumstances which accompany it, we would get a generalization that would have the uncertainty and the limited value of all the simple empirical generalizations, and that even when we had found a circumstance common to all the changes. Because, firstly, the mere existence of a fact cannot guarantee its future existence in a world where changes happen and, secondly, the extension of the facts of our effective experience in a domain that exceeds it, is very precarious and condemned by the consistent Empiricists themselves (1). If, however, we can legitimately start from an *a priori* reason, that is to say regardless of the infinite variety of

possible cases, to affirm something of the change, our affirmation is valid without exception and

(1) See, in the second volume of the *Logic* of Mill, the chapter on "Proof of the universal Law of causality," where he says it would be foolish to boldly assert that the empire of the Law of causality extends to the remotest parts of the stellar regions.

-211- we have a Law that has a value as general as if derived from pure *a priori* concepts. The service we get from the *a priori* concept is to put us in a condition to admit with absolute certainty, in the diversity of data, an amount of strictly identical cases. The identity of these cases must, it is true, have, in experience, a given sign (*i.e.*, the change as such); otherwise, we could not observe them at all and we would have no reason to say anything common to all these cases; but, we would absolutely have to add to that particular sign another determination with a value without exception; this can only be explained by the *a priori* concept. And as the union of two determinations entails a Law, the guarantee of the Law is in the *a priori* concept and not in empirical conditions of any kind. The above deduction alone demonstrates how the Law of causality can be *a priori* certain for us, without need to know anything *a priori* of changes and causality.

§ 3. The difference between the ordinary and the scientific conceptions of the idea of causality.

From the Principle: "Every change has its cause", two consequences ensue which are of great importance to Science and give full meaning to the Principle of causality. Here they are:

1. The particular cause of a change cannot be but another change.
2. All causes and effects are mutually linked by Laws which cannot undergo any change themselves.

The usual, unscientific, conception of the Principle of causality differs from the scientific conception, in that in the first, we do not draw these consequences; they

-212- are not incorporated into the concept. The deduction of these consequences must, therefore, be undertaken with care.

We are used to admit that to every action there is a reaction. Any effect is considered a modification of an object by another, and the latter is

called the agent, the former the patient, from the point of view of their mutual relations. It is clear that a product resulting from the action of an object on another is necessarily determined by the nature of these two objects; but, we give the name of cause to the agent, not the patient, although the product is a modification of it. The sun produces very different effects on different objects: it melts the ice, activates vegetation, darkens complexions, blackens silver chloride, etc. The diversity of these effects obviously comes from the diversity of objects in which they occur. The reason ice melts in sunlight at a certain temperature, is not only in the action of sunlight, but also in the nature of ice. A stone, for example, would not melt in the same circumstances. And yet, it is to the heat of the sun only, not the ice, that we attribute the cause, the fusion. Likewise, the darkening of silver chloride exposed to sunlight is considered the effect of this exposition, and not of chloride. And with reason. Because under the name of cause of an effect is not only meant that which contains the sufficient reason of its way of being, at least in part, but primarily the reason why the effect, as a general thesis, is produced, comes into existence. A cause as such is primarily the reason of a becoming, of a change. By mistake only do we call cause that which does not contribute to the production of changes.

But, it is clear that the cause of a change cannot be but another change and the cause must always precede its effect.

-213- It is, however, a truth quite often unknown, even among scholars. They are sometimes quite willing to preferably consider as causes persistent objects and states, and regard the temporal relation of succession as a non-essential determination of causality.

Let us first analyze where this misunderstanding originates.

The usual expression of the Principle of causality: All that is born and anything that happens has a cause, is itself flawed. When talking about what is born, we consider two things:

1. The fact of being born itself, and 2. The nature of what is born.

But, the Law of causality has nothing to do with the nature of what is born. It relates exclusively to the fact of being born or to the change, and requires that this fact have a cause; otherwise, it could not be general, or it would not be the Law of causality, but any other Law. By mixing that which has no relation to it, such as the consideration of the nature of what is born or what changes, we have corrupted the concept

of causality, and we took things and circumstances that do not contribute to production of change but only participate in the way of being of what changes for the causes of the change.

The opinion that the proper cause of a change cannot be but another change has two reasons: one metaphysical or speculative, the other empirical or scientific.

The metaphysical reason is that on which the Principle of causality itself rests, *i.e.*, the *a priori* concept, according to which any change is foreign to the true, primitive being of things, from which it follows that the cause or the condition of a change is never in the true, constant nature of a thing, or, in other words, that change can never come out of a state of rest. Kant understood it and, although he always or most often gives the name of cause to objects or things, at the same time, he, however,

-214- specifically remarks that: "The causality of the cause of what is happening or what is born is also nascent and needs itself, following the Principle of understanding, a cause in turn" (*Crit., Pure R.*, p. 435). Should we understand by cause an object - a change in the cause will precede the action of this cause if the Law of causality must be valid, because otherwise the passage of the cause from a state of rest to a state of action would be a phenomenon without cause. But, a cause that itself needs another cause to deploy its causality cannot obviously in the narrow and special sense of the word, be called a cause.

The scientific reason consists in the fact that nothing is given, is known to us of causality, if not an invariability, a uniformity in the succession of phenomena. I do not consider necessary to prove that proposition because it was definitively established, as we have seen, by others, such as Hume and Brown. One should marvel only that penetrating thinkers like Brown and Stuart Mill did not notice to what consequences this proposition leads. Mill even speaks by criticizing it, of the tendency to associate the idea of causality (causation) to an earlier (recent) event rather than to past facts or permanent states (*Log.* 1, p. 374). Yet, it is clear that the invariability of succession precisely implies a succession and that a succession consists of changes. A permanent antecedent could have only a permanent consequent. The tendency mentioned by Mill to consider as a cause of a change the previous change related to it, and not the permanent state of things, comes from the opinion that in the latter, there is only the reason the

change is such, and not otherwise, but never the reason why a change in general is produced.

If, as Mill himself says, only the beginning

-215- of a phenomenon, and hence the change of the given state that follows, is what a cause implies, he thus grants by this that all causality as such relates only to the changes, and then we must obviously expand the consequence and recognize that the real cause of a change can only be another change. The extensive analysis of Mill on this subject (*Log.* I, chap. On the Law of causality, §3), according to which all antecedents should be considered as the cause of an event, rests on the ignorance of the following: to any change, always and everywhere, another change necessarily follows, and under the same circumstances, the same; conversely, a change never occurs without another occurring before to which the first is always linked under the same circumstances.

As to the nature of the phenomenon that follows, it is doubtless conditioned and determined by the permanent state in which it occurs, so that the action of the same change in different circumstances can be very different. But, as the simple production of changes, as such, is independent of their nature and causality relates solely to changes as such, the constitution of the effects and causes is indifferent to the general theory of causation (1).

We must, therefore, distinguish a scientific use from a philosophical use of the word *Cause*. Science, which aims to discover the Laws of phenomenal data, to recognize what consequences follow from given antecedents, must understand by cause of an effect the whole, the sum of its antecedents. Because, the nature of antecedents determines the nature of the consequents.

(1) It must be recognized that Mill in his latest book - *Three Essays on Religion*, London. 1874, p. 143 – has recognized the true doctrine on this point. He says, in effect: "The cause of all change is a prior change, and it cannot be otherwise, because if there were not a new antecedent, there would not be a new consequent."

-216- On the contrary, Philosophy which has only to consider and establish the general Law of causality understands by causes changes only; because, the Law of causality only consists in this that any change is conditioned by another change.

It is obvious that the cause in this latter sense, its proper sense, is prior to its effect. For, it is precisely in its constant anteriority that its causality consists. If causes and effects could exist together, the whole chain of causation, as Schopenhauer has justly remarked, the whole series of causes and effects would be present at the same time, and there could be no question of succession.

The tendency to take existing objects or things for causes and to believe that causes and effects can coexist is probably favored by a cursory examination of reality. Because, experience shows (apparently) things that act on each other and coexist in their effects.

But, the objects, the things of experience, are in reality mere *complexus* of phenomena and what we see as the real being of these things is indeed a perpetual renewal. These apparent things are causes only as they are facts; they determine a new being outside themselves only as they are themselves anew. A real thing, a true substance, on the contrary, can never be a cause nor be seen as such. This idea will be fully developed in the present work and this is one of those ideas without which there is no true Philosophy, but only gropings in the dark.

§ 4 on the same subject (continuation.)

The second consequence which is drawn from the Principle of causality is that the causes and effects are bound by fixed Laws, that like causes always produce like effects.

-217- To my knowledge, nobody has ever noticed that the Principle: The same causes always have the same effects, is logically related to the Principle: No change is without cause, and it is a necessary consequence of the first. If, when I have expounded this connection, it is not clear for everyone, it will be a further proof of the incredible difficulty with which we grasp the relation of the brightest of ideas. For, there is hardly something more clear and simple than the logical relationship between these two Principles.

Let us call a cause A and its effect B. If there could be a change in the relation of A and B, if from A could result once, not the effect B, but the effect B', this change from B to B' would be without cause. For if we say that the change from B to B' has a cause, we specifically say by this that this change was caused by a change in the cause A, that the modified effect B' comes not from the cause A, but from the modified cause A'. The relation between A' and B' is exactly like the

relationship between A and B, that is to say B' must invariably follow A', as B follows A consistently. Indeed, let us state it once and for all, if, in the effect, a change happens without a change occurring before in the cause, a change by which the first is conditioned, of course this change in the effect is absolutely without cause.

So, from the fact that any change has a cause, it follows immediately that all changes occur according to immutable Laws, that relations of cause and effect, the Laws of their successions, are invariable. These Laws do not allow themselves to be deduced from the Principle of causality, but if this Principle is well established, it gives us the *a priori* certainty that there must be such Laws and all becoming is necessarily subject to these.

-218- Now, these are very serious consequences that the common reason does not draw from the Principle of causality, to which it pays no attention. No reason, even the grossest, can conceive a change without cause. But, the constancy of the relationship between cause and effect, the consistency of their relation, are not clearly seen because one does not know how to draw the consequences of its own concept; more so, the road leading to that knowledge is blocked.

Indeed, as we have already noted, these are the things or objects that the common consciousness takes for causes that modify by their action other objects.

But, one thing is, according to its concept, existing by itself, unconditioned. Hence, the tendency of the common consciousness to think that the activity of the causes is not subject to any Law. Hence, also, the disposition to generalize the imperfect experience of its own being and to apply it to other things.

And as more often, we know next to nothing of the Laws of our own being, of the rules of our will and our motives, we are most willing to admit a perfect absence of Laws and to also apply it to other objects.

In summary, the common reason itself does not fail to attribute any perceived change to a cause; but, it has already difficulty to understand that in the cause itself there cannot be change without cause; it cannot deviate so far from what is given immediately. For Science, on the contrary, the Law of causality is like the guarantor and the expression of the uniformity, the invariability of the order in nature; for it, these are not objects acting on other objects that are the causes, but rather phenomena, changes that are consistent antecedents

of other phenomena, of other changes. The link of causes and effects, the Laws of their sequence, is precisely the only thing that Science has to discover.

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§ 5. Verification of the deduction of the Principle of causality.

We are now in a position to see how the consequence that results with logical necessity of the causal Principle itself confirms the rigor with which this Principle has been deduced from the *Principle of identity*.

The Principle of "no change without a cause" is the result, as we have seen, from the fact that the relationship of cause and effect, the Laws of succession, are immutable. What, then, does the Principle of causality mean? This, of course:

That nature, in any particular change, and in general (that is to say in the regular connection of the particular), is always identical to itself.

The *Principle of identity* is, therefore, present in the Principle of causality. The immutability of the Laws is the only way that the identity to itself can manifest in a world intermingled with foreign elements. This identity to itself is not unconditioned, excluding all relativity and all change, such as that which is proper to the essence of things, but nevertheless keeps in very close relationship with it. If the Principle of causality had no value, that is to say if something could be born of nothing, if there could be an unconditioned becoming, the *Principle of identity* would have no value either. Then, the change (that is to say the opposite of identity to itself) would be precisely the true, unconditioned quality of reality. And, on the contrary, the *Principle of identity* would not be true, the true being of things would not be identical to itself, there could be an unconditioned becoming, that is to say changes without causes. Precisely because any change is foreign to the unconditioned essence of things, because the identity to itself, that is to say the opposite of change, is its fundamental feature, all change is conditioned. And it is precisely, on the contrary,

-220- because in the changing world, all, in particular, is conditioned, dependent on causes, that this world remains generally in its regularity, always identical to itself and therefore does not contradict the *Principle of identity*.

On this fact that nature, while everything particular in it changes, is still generally identical to itself, rests as it is known, the value of all

induction, of all conclusion from past to present and future. On the certainty of this is, therefore, based also the certainty of induction. But, the certainty of this fact can never be guaranteed by experience, as I have amply demonstrated in several passages. It depends, as we have seen in the previous deduction, on the first certainty of the supreme Law of thought, which finds expression in the *Principle of identity*. This Law contains the fundamental reason for our belief in induction.

To the proof that we have in the previous Book drawn from experience for our supreme Law of thought, we must add one that is drawn from the general authority of the Law of causality and so close the series of individual testimonies of experience for our Law of thought.

Now, we can say that all of nature vouches in favor of the objective value of this Law. The way of being of empirical objects themselves, their way of existence (temporary), their absolute dependence *as regards* conditions and their common uniformity based on an illusion and, finally, the immediate testimony of our own selves, in short, all the facts, however different they are, unite to prove that the empirical nature of things is not the true, normal nature, and it is not precisely so because the internal identity to itself is missing, because it does not agree with the statement of our Law of thought. For one who does not understand this language of the facts themselves, following all preceding discussions, there is nothing to do.



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Chapter 2

Being and becoming

It was found that one must distinguish between two sides or two domains of reality: the true, unconditioned, essence of things, and their empirical development that contains nothing unconditioned, whose overall quality, instead, is to be conditioned. For, it contains elements that are foreign to the true being of things as such; hence, everything in it, to take each thing in particular, depends on conditions. It was proved especially for change and becoming, that they are foreign to the true being of things in themselves and are, therefore, necessarily always and everywhere conditioned. But, it is not superfluous to note that, conversely, anything conditioned is a pure becoming, a pure process, so that the contrary of the unconditioned and conditioned is synonymous of the contrary of being and becoming.

To be conditioned, is to dependent on another object, but only when the two objects are foreign to each other from the outset. For, if they are primarily related as to their own essence, they form one single object, dissimilar in itself. Their mutual relationship is not, therefore, foreign to their nature and does not constitute the fact of being conditioned. Let us compare this to what I said above (p. 147). Now, it is easy to see that, outside and independently of the succession, no relation of subordination and dependence is possible. For, if we conceive two things that are related from eternity, first of all, we cannot say that one is the condition and the other is conditioned, because in their respective relationship there is no conceivable difference. If we want to see in this relationship a dependence,

-222- it is a reciprocal dependence of two things. Second, if one thing is inherent from eternity to another thing, that one belongs *eo ipso* to the true being of the latter. So, if two things are primarily united, their mutual relationship is not foreign to their being, and, consequently, the two things are not conditioned by that. I also proved above that if what is originally different was one as to its true being, this would necessarily form an immediate unit, a unit different from itself, which is contradictory. So, if we completely disregard any succession, there cannot be dependence and subordination.

On the contrary, with the succession, the conditioned, the dependence of a phenomenon *as regards* another phenomenon may well occur. First, the objections raised against the unconditioned union of the diverse are worthless against the binding of the diverse in the succession. Precisely because the succession does not belong to the true, unconditioned, essence of things, and it was against that essence that these objections were raised. A union of the diverse according to Laws in the becoming does not contradict the Principle of contradiction. And, here, the dependence of a phenomenon with respect to another can be precisely observed because the first invariably follows the second.

If there are different phenomena, bound in reality though coexisting, as several characters of a thing, we do not say that one conditions the other. Nobody would claim that the weight of a body is the condition of its form, or its color the condition of its flavor. The several attributes of a thing may serve consciousness as signs from each other, and one indicate the simultaneous existence of the other; but, we cannot admit a relation of mutual dependence between truly simultaneous qualities. If, conversely, of two bound phenomena one precedes and the other follows, the existence of the latter is linked to the first as to its condition;

-223- for it is as if it happened by way of the first. Here is realized the unilateral dependence that is commonly and preferably considered as a conditioning.

Furthermore, a relation of simultaneous phenomena could never be known without their succession. For, a combination of the diverse can never be immediately given in perception and, if everything were found together, side by side and without change, there would be no possibility of immediately knowing this connection, that is to say to conclude it. But, if several phenomena, in the back and forth movement of others, remain together, then nature itself offers us as an *experimentum crucis* [a critical experiment to validate an hypothesis], to distinguish between what is mutually linked from what is not, although the immutability of this connection can never be taken as certain, as we have seen, from the data of the experiment alone. A combination of the diverse according to Laws in general is, therefore, possible and feasible only in the becoming and only by the succession.

It is very important to clearly see that the concepts of "conditioned" and "becoming" are exactly equivalent, that everything that falls under

one necessarily falls under the other. Only the analysis of concepts, though necessary to establish this truth, cannot make it as evident as we would like. We shall, therefore, call on the testimony of experience itself, to see if the result obtained by analysis is confirmed. However, experience shows us in fact that everything in the field of the conditioned, is a pure becoming and, in the words of Plato, "which always becomes and never is." This sensible world which seems to us so firmly established, reveals itself, if examined closely, as a simple swing of phenomena always repeating, in which nothing is immutable, save the Law according to which the appearance and disappearance of

-224- phenomena occurs. It is as well observable in the objects of the inner experience as in those of the outer experience.

The purpose of the inner experience, our own self, present itself to us, as impossible to doubt it, as something that subsists by itself, as a substance. I am the same today as I was yesterday, or even those many years ago, from the first beginning of my conscious life, whatever actually happened to me during that time. But, if one asks: "What am I properly? or what is this constant self of mine?" We do not find there any real, particular being, but only the pure unity of my consciousness. What forms the contents of my being, my existence, are always feelings, thoughts, inclinations or other inner states that pass; what is not changing is only the Law, for the knowing subject, to know all these states as his or her own; hence, as something permanent. The thinkers, themselves, who would willingly make the self a substance, agree that there is in it no content that responds to the concept of substance. We are not here to dwell further on the subject.

Perhaps, we will become familiar with the idea that the conscious self is pure becoming, a kind of process, because we know that this self is born and dies, has a beginning and an end; but, that corporeal objects, the majestic mountains, the vast ocean, or the earth "so firmly seated," are resolved, with other celestial bodies, in a given process, the common consciousness protests with all its strength against this assertion. I only ask that we stick to the bodies of experience and we do not substitute Metaphysics for experience. For, only of the objects of experience do I affirm that they are pure becoming. To combat the existence of real objects outside of us is here neither

-225- my intention nor my task. If there are outside of us real, unknown, substances, they are not conditioned. But, as regards the bodies of our experience, I have already demonstrated in Book One

that they are not made of anything but our own sensations, and these are obviously conceived in a perpetual flux and ebb.

Sensations and inner states of the knowing subject form the totality of the knowable world, the world of experience, which is conditioned in all its parts. So, it is true, as Heraclitus taught of old, the world of experience must be compared to a river in which new waves always replace those that precede, and that not two are exactly alike for one instant. There is indeed something immutable in the world of experience, but it is not a substantial nature, it is not a real object or a plurality of objects; this something only consists in the Laws of phenomena, in the order of their simultaneity or their succession. So, there is no real being in the world of the conditioned, *nothing is*, in the true sense of the word, in the field of experience, but everything *becomes*. We believe, it is true, as we have often said, that we know in experience real things, an immutable self in us, a world of permanent bodies outside of us; but, this is only an appearance naturally necessary of course; the immobile existence, apparently, of these things, is in reality a continual rebirth. We shall amply see this in the chapters of Part Two dealing with the reality and perception of the bodies, the nature and unity of the self.

Just as, on the one hand, to be conditioned and to become exactly mean the same thing, likewise, on the other hand, unconditioned essence and being are synonymous. The existence of a real substance, of a really unconditioned object is the true, permanent, being,

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containing nothing of becoming or change in itself.

For, the unconditioned essence of things is, as has been already abundantly proved, perfectly identical to itself and, therefore, incompatible with change. A real substance is not born, does not pass, does not change, it is out of time, in a word.

The essential is to understand that being, alone, is normal existence, that becoming, on the contrary, is an abnormal manner of existence. The world in which *nothing is* really, where everything *becomes* is abnormal. For, all that changes peremptorily shows by it, even as we proved above, that it does not have a really true being, rather that it is internally without fixity, that it is abnormal. Moreover, we see that the world of becoming is subjected to a naturally necessary appearance, which represents it to consciousness as a real world, as a world of

substances. Consequently, there is no doubt that being alone is the normal way to exist, that the world of becoming on the contrary is abnormal.

This theory is decisive for our manner to conceive the connection between the unconditioned and conditioned, between being and becoming. If all the conditioned, all the becoming is abnormal (that is to say, contains elements that are foreign to the true, natural, unconditioned, being of things), it follows that the becoming cannot be derived from the being and the conditioned from the unconditioned. To prove it is the task of both the next chapter and almost all of the last book that deal with the explanation. All the intelligence and the deeper lessons, depend on this doctrine. This is also the point where the natural appearance deceives human consciousness the most seriously. Experience shows us everywhere the apparent being and the becoming united to each other, that is to say real, permanent things that, however, change and interact with each

-227- other. That this is really a pure appearance, that the substances of experience are not real substances and, in a word, that nothing of experience, either within or outside, can by itself, as to its individual essence, be the cause and have the power to produce changes, effects; that is what we have to prove and that we shall fully prove in the course of this work.



Chapter 3

Relation of the World and the unconditioned

§ I. This relation is unlike any of those we know.

Nothing unconditioned is given to us immediately in our experience, as shown by the simplest reflection. Even the one trapped in the natural appearance that makes us see in experience a world of substances, of unconditioned beings, will ever assert that we immediately perceive real substances. Any hypothesis of an unconditioned is thus a consequence of what is given and can only be based on reasoning. What is now the foundation, what is the justification for this reasoning?

We have already explained it above. The unconditioned is nothing but the really true, normal essence of things, as the immutable and unconditioned substance is the normal being of things. We must conclude from what is given to the unconditioned, we cannot conceive the conditioned without the unconditioned, the becoming without the being; this means that we cannot conceive the abnormal

-228- without the normal from which it deviates. Because, the abnormal is the deviation from the *Norm*. We saw earlier that the abnormal, empirical reality precisely vouches in this for the *Norm*, in the fact that it deviates from it. But, if it is clear that the conditioned has a necessary relation to the unconditioned, the becoming to the being, as to the *Norm* of all reality, it is also clear, on the other hand, that the former cannot be derived from the latter. For the *Norm*, on its side, cannot be related to what deviates from it, nor contain the reason for this deviation. If we call, with Kant, the unconditioned, the normal or the being "thing in itself" [*Dinge an sich*], and the conditioned, the simple becoming, whose nature is abnormal "phenomenon", we must say: the phenomenon, it is true, is a function of the thing in itself (or of things in themselves, in case there would be several), the conditioned a function of the unconditioned, but in none of the senses we know. The thing in itself does not contain the sufficient reason of the phenomenon.

It is said of a thing that it is a function of another when it depends essentially on it. But, there are, I think, only five basic ways for one thing to be a function of another. One thing can be, in effect: 1. The

quality, or 2. the state (temporal), or 3. A part, or 4. An effect, or 5. A representation, of another.

For me, there are no known ratio of essential dependency that does not fit into one or the other of these five classes or is composed of some of them. Now, we see without difficulty that the relationship between the unconditioned and the conditioned does not fit in any of them. It is enough to consider the fact that in experience, nothing unconditioned is immediately given us; that experience does not show us things as they are in themselves, as they are with regard to their true, normal, unconditioned essence.

-229- It is clear, first, that the given, conditioned world contains no qualities or states of the unconditioned, whichever way we consider the unconditioned, as a single substance or as several. For, the unconditioned itself would be given in its qualities and its states and would result knowable as it is, - and no one will argue that, in the content of our experience (in our feelings and sense impressions) the unconditioned is given us itself and is thus knowable as it is.

The question of whether the unconditioned is one or multiple (one or more substances) is still a matter of speculation, not of experience, and opinions about that are divided.

It goes without saying that the conditioned is not a part of the unconditioned. Because, in a portion of a thing we know the thing at least partially and this is not the case.

It is unnecessary to prove also that the conditioned is not a representation of the unconditioned. Precisely because we have no idea of the unconditioned, or rather, our idea of the unconditioned has no given content in experience.

Moreover, the given world does not consist of ideas only but of real objects represented, which cannot be conceived as ideas of something else.

The remaining assumption is that the unconditioned is the cause of the conditioned, that the relation of *noumenon* to *phenomenon* is that of cause and effect. This is the proper foundation, the Principle hypothesis of all Metaphysics. It is so familiar and natural to the human consciousness and its strength so irresistible that even thinkers who have resolutely fought the application of the causal concept to *noumena*, have however considered them as causes of *phenomena*.

The relation between the unconditioned and the conditioned, between the essence of things in themselves and the world of experience can

-230- not be a relation of cause and effect or of Principle to consequence. Experience in effect, does not present us things as they are in themselves, that is to say, it contains elements that are foreign to the nature of things in themselves and, therefore, cannot have in them their reason. So, we see that the conditioned cannot be conceived as a reflection of the unconditioned, nor the latter as the cause of the former.

There are only two known manners for two objects to be cause and effect of each other:

1. A phenomenon that always and invariably follows another, whose existence in the succession is conditioned by the former, is the effect, and the other the cause.
2. If an object A exerts a modifying influence on an object B, the state B, as amended by this influence is called the effect of A, and A is the cause.

We have already shown that this last proposition does not differ essentially from the first, that the proper cause of change is another change, and that the causal relationship consists of nothing other than the invariability of the succession. But, here we will consider the two cases separately.

It is clear, first, that the unconditioned is not to the conditioned as an antecedent to the consequent. For, if the unconditioned were an eternal antecedent, it should have an eternal consequent, and then there would be no succession of the two, and we could no longer say that one is conditioned by the other. Particular determinations in the world of the conditioned are constantly born, it is true, and have in this world, their causes, their constant antecedent; but, to say that this world itself was born from any cause, is contradictory; because, if we admit, a first beginning, a first change, it must necessarily be unconditioned or without cause. Reason demands that an immutable object cannot be the constant antecedent of this change

-231- because it, itself, existed in exactly the same circumstances, before the production of this change, for an indefinite period, without having it as a consequence. But, some will say, is not the unconditioned the cause and not the constant antecedent of the

conditioned? One knows not, then, what is said. Because, we speak of the causal relation of two things to which nothing in reality resembles, where a causal relation of two things impers and can only be understood as the invariable succession of these things. An effect that is not the constant consequence of its supposed cause or not constant following its supposed cause contains nothing that expresses a dependence on the latter. The affirmation of such an effect is absolutely senseless.

But, when we say that the unconditioned is the cause of the conditioned, we can understand it from the second of the manners listed above. The unconditioned is then not, as such, the constant antecedent of the conditioned as such. But, a state of a thing (unconditioned) must be the constant antecedent of a state of another thing. This is the usual way of looking at it. We often talk, it is true, of things themselves as causes, but we still mean by this causality of things a causal relation of their states. Thus, we call the sun the cause of the day, or the bullet the cause of the death of the animal it hits, and we simply mean here that the appearance of the sun has necessarily the appearance of the day as consequence, and the shock of the bullet the death of the animal hit. But, one can very well conceive that the fire of the sun is out and then it would not be the cause of the day; it would produce no more days.

One can still better conceive that the bullet remains at rest, or at least is directed so as not to hit any living being; the bullet would no longer be a cause of death. It is not the things themselves, but their determined states which are cause of the effects we are talking about.

According to this view, the unconditioned, as such,

-232- is no more the cause of the conditioned, but its support or its substance. The conditioned means the states of things which are not conditioned by the essence of the same things in question, but by the states of something else. If one thing were itself the condition of its states, the difference of the condition and the conditioned and thus the conditioning of the states would obviously disappear. The particular states of a thing cannot, therefore, be distinguished from this thing and would be as little conditioned as itself if it were not dependent on any other. We, thus, call these conditioned states of a thing pure accidents, by which we mean that they do not belong to the essence of the thing in itself, but they are incidental and, therefore, contain an element that is foreign. But, what conditions from the outside the states of a thing,

that is to say, what plays the part, in relation with them, of invariable antecedents, cannot be the true, permanent being of another thing or several similar; because, permanent antecedents, taken separately, would have only effects which are also permanent themselves. The cause of an accident in one thing cannot be an accident of something else, and this relation presupposes, as we have shown above, a connection of things and their states according to invariable Laws.

But, a relation of unconditioned objects following common Laws and also a causal relationship between them, contradicts, as we know, the notion of unconditioned object to which all relativity is necessarily foreign. And admitting that one could conceive an action of real things on one another, we would gain nothing to answer this question: How does what is given us in experience relate to the unconditioned essence of things? What function does it represent of this unconditioned? For whatever the relation between things, what is certain is that none of these things fall in our experience. Now, where

-233- things are not themselves, we cannot naturally observe their relation; there are no relations, in fact, outside relative things. A causal relationship of two things, A and B, means that a state of A is the constant antecedent or the constant consequent of a state of B. But, nowhere and never the real status of a thing is given. For, the things would then be given us with their states, which manifestly is not the case. What is immediately given, as is recognized and agreed on all sides, is our sensations and our inner states, and no intelligent man will think he met in them a real substance, an inner substance of the soul, or an external substance of the body (see, for the proof, Part Two.)

The fundamental supposition of Metaphysicians that the unconditioned contains the sufficient reason of the conditioned, of the world of experience, and that the latter must be derived from the former, is totally unacceptable.

§ 2. Further determination of the relationship between the world of experience and the unconditioned.

I have shown in the previous § that the relation of the world of experience with the unconditioned is not alike any of those we know. However, experience offers us a relation that has some analogy to the present one between the thing in itself and the phenomenon, between the noumenon and the phenomenon. This is the relationship existing between an object and its misconceived idea.

If we say that something is a pure phenomenon and not a real thing, we always mean by this, without being ever clearly conscious of it, that it contains within it an element of falsity. In fact, we have proved above that the objects of experience do not possess a really true being, but are organized in accordance with an appea-

-234- rance naturally necessary that makes them appear to consciousness as a world of substances. Empirical objects are, therefore, only simple phenomena. There is thus between a phenomenon and a misconception some analogy, and this is where we can best get an idea of the relation of the thing in itself and the phenomenon, of the unconditioned and the conditioned, if we come to understand how it resembles the relation of an object and a false idea, and how it differs from it.

Experience does not show us things as they are in themselves; it contains elements that are foreign to the nature of things in themselves. Similarly, a misconception does not represent the object as it is in itself, actually; it also contains elements foreign to the represented object.

Formerly, for example, one took the earth to be a flat surface which had limits anywhere, at an indefinite distance, and which formed the center of the universe. Now, we know [if we give credit to the current Copernican View, very much discussed and sometimes disproved by certain experiments, 2016] that this idea is false, that qualities were attributed to the earth that do not belong to it actually which, therefore are foreign to it. The earth is not a flat surface and does not occupy the center of the world [Again, modern scientific consensus, but heavily exposed by some thinkers, because this empirical world of ours is in fact abnormal.]

So far, the analogy between the relation of a misconception and its object, and that of the given world and the unconditioned is perfect, and we must say that Kant has not made or not remarked any difference between the two relations. For Kant, indeed, the word phenomenon was synonymous with the word *idea*; so, he regarded the phenomena as false representations of things in themselves, ideas of the latter that did not agree with their essence. But, this theory is unacceptable. Indeed, the world of experience consists not only of ideas, it also contains objects. The phenomenon is not only a subject, but also an object.

In Chapter 2 of Book One, I already showed

-235- that the nature of the idea itself guarantees the existence of an object corresponding to it, that in fact our sense impressions, our impressions, must be considered as real objects, different from their ideas, although they are not things in themselves, unconditioned objects or substances. The fallacy of experimental knowledge is, therefore, not, as Kant affirms, in that we take things in themselves to be mere phenomena, but rather that we take simple phenomena, our self, on the one side, sensitive impressions, on the other, to be things in themselves, substances, which they are not in reality. The real things in themselves are in no way and from no point of view the subject of experimental knowledge.

If we believe that the object of our knowledge is a thing in itself, we should attribute to our knowledge alone all that is foreign to the essence of these things, all that does not agree with them. In this supposition, any foreign element in the *in-itself* of things, in our experience, is conceived as something not objective, but merely represented. So, we see Kant explained as a pure form of subjective intuition the succession, the change of phenomena, and search at the same time in the nature of the knowing subject for the reason of the relativity of phenomena and of their binding Laws. Herbart, too, endeavors to see in the change of the given only a pure appearance and to consider its relativity as a determination that is accidental to it. But, these views of Kant and Herbart are unsustainable. The essential relativity of phenomena, as well as their successions, are undoubtedly objective facts. If there is something foreign to the being of things in themselves, this foreign element is given in the objects themselves, not only in the knowledge that we have of them.

-236- We must conclude from all this that there are even real objects which are mere phenomena, which have a relationship with the idea, to wit that they carry within them something false. We must be even less surprised that an idea, considered from the standpoint of its being and its real existence, be itself an object or a real fact. We cannot consider an idea as nothing; it is an object, in reality, although it is not a thing in itself.

If, on the other hand, the fallacy lies in the idea in that it pretends to represent an object as it is in reality, while it does not agree with the actual way of being of this object, the falsity of empirical objects, of phenomena, consists, in general, in that they do not have a really true

being, and are simultaneously so arranged by nature as to appear to consciousness as normal things, as substances while they are in truth only temporary phenomena.

And as - to stick to the example of mistake we chose - the earth was not guilty of being considered a flat surface at the center of the world, as the sufficient reason of this misconception or false idea could not be in the given object, *i.e.*, the earth itself, so, the sufficient reason of the phenomenal world cannot be found in the nature of things in themselves, either.

The phenomenal world is not the world of things in themselves, precisely because it contains elements that are foreign to the nature of things in themselves. But, what is foreign to this nature obviously cannot have in it its purpose. The true essence must be in a certain relation with its phenomenon; but, we cannot conceive what this relation is. Kant rightly says: "From the super sensible *substratum* of nature we cannot say anything, except that it is the being in itself of which

-237- we only know the phenomena." (*Crit. of the Judg.*, p. 304) (1).

To be certain, we only have to compare this relation with the one that exists between a misconception and the represented object. The misconception, also contains elements that are foreign to the represented object (erroneous) and cannot have it as their foundation. But, we can very well explain the presence of the error in the idea. We see the reason for the error in the knowing subject himself and the influences that made his judgment wander. Once, we took the earth for a flat surface; this came from our attachment to the immediate appearances, which absolutely gives the impression of a flat surface, and from the fact that nobody asked why the visible surface was terminated by a circumference, nor why the earth seemed to widen as one rose over the mountains. The error was dispelled when mariners had sailed round the earth. But, it is different in the world of phenomena and elements of this world that are foreign to the essence of things in themselves, that do not have in them their reason. It is absolutely impossible to find a reason for these elements, because there is nothing outside the essence of things from which we can derive and explain them. The way of being of the given world and its relationship with the unconditioned, with the essence of the real in itself, is thus inexplicable and incomprehensible because of the very nature of things.

Even if we admit with Kant that the phenomenal world is simply ideas that do not represent things as they are, we could never explain where this inaccuracy come from. By saying with Kant that this fallacy has its reason in the part the subject himself

(1) Unfortunately, in contradiction to this correct affirmation, Kant has given to things in themselves the causality and has assumed with the crowd that they were the sufficient reason of the phenomena.

-238- plays in knowledge, in his *a priori* Laws, we could never conceive how misleading these Laws can result from the true nature of things. If the knowing subject himself with all his qualities, all his Laws, came from the nature of things, the falsity in his way of conceiving them would also come from this nature, and this is absolutely unacceptable; because, things could not contain in their true essence the reason of their appearing otherwise than they are; it cannot be in the true essence of things, as Hegel claimed, to deny themselves and become the opposite of themselves. That an object deny itself, would rather be the proof that it does not have a normal way of being, that it contains elements foreign to its true essence.

For, in themselves, as to their true essence, things are perfectly identical to themselves. To take the fact of denying themselves for the normal, primitive, unconditioned, quality of things, is pure nonsense. The logical contradiction is not, as Hegel taught, the true form of knowledge and thought, but the death or the suicide of one and the other. But, we have, here, the choice between logical contradictions, first, that is to say the suicide of thought, and on the other, the confession that the world is incomprehensible. If we really want to think, not to feed on empty words, we must decide for the second alternative.

In a word, we come to this consequence: everything in our world is dragged in opposite directions, constantly moving, mixed with evil and imperfection and conditioned by an illusion. But, it is absolutely impossible to admit that these contradictions, this change, this evil, and this illusion or this falsity belong to the normal nature of things.

It is absolutely inconceivable, because change, imperfection, evil and illusion bear in themselves

-239- the testimony of their abnormality; because an object that is dying, that changes, that deceives, in other words, that gives itself for

something other than what it is in reality and which is revealed as flawed or bad, denies itself by the fact and proves that its manner of being is abnormal. Also, common consciousness itself cannot ignore that the change, the evil, the imperfection and the falsity are what should not be, what does not belong to the normal nature of things. But, precisely because these worldly elements are foreign to the normal, unconditioned being, they cannot have their reason in this being. It is obvious that the truth will never produce by itself the falsity or appearance; that the illusion or the error cannot ever come out of the true, normal, essence of things. I already showed and will still show that the becoming can never be inferred from the being; that a thing really and truly at rest, a real substance, can never be the cause of the movement or contain in itself the reason of the becoming. But, in this world, everything is a simple becoming and, therefore, cannot have, as such, its reason for being in the unconditioned. The unconditioned does not contain the sufficient reason of the world.

As conclusion of this chapter, we can establish the following:

There are, as a general thesis, only two conceivable ways of behaving with regards to what is given: 1. Go through reasoning from the conditioned to the condition or, what is the same, because the conditioned, as we know, is a pure becoming, - from the effect to the cause; 2. Become conscious of the truth that things in themselves actually are not made as we know them in experience.

The first is that of Metaphysics, the second that of critical Philosophy. It was shown that these two ways of thinking cannot be reconciled. Where one leads,

-240- the other cannot lead, and what one provides, or seems to provide, the other cannot provide. The fundamental assumption of the Metaphysicians is that the unconditioned contains a sufficient reason for the conditioned; their great affair is to deduce the latter from the former. But, reasoning to find the cause or the condition can never exceed the experience nor attain to the unconditioned, as I have already shown and as I will show more abundantly. All Metaphysicians can do is to extend experience in an imaginary way. Their unconditioned or absolute, diversely fashioned, is, therefore, an empirical object, such as chimera or harpies of ancient Mythology, and answers as badly as these to reality. From both sides, these are fantastic, arbitrary, combinations of data provided by experience. - If the method of critical Philosophers starts from the true

notion of the unconditioned, it leads to this result that the unconditioned has no analogy with any empirical object and cannot contain the sufficient reason nor the condition of the conditioned.

Although in this world, in fact, everything seems to come from one single source or the same root, and that the normal and the abnormal, the good and the bad, the true and false, are closely united in it, there is between them a radical, essential opposition, though, which allows no accommodation and immediately excludes the thought that they could have in fact a common reason and origin. The composition, on the contrary, and the change, the evil, the illusion and the error are foreign elements opposed to the normal nature of things and cannot be derived from it.



Chapter 4

The unconditioned is one

§ I. Proof of the unity of the unconditioned.

We have shown that all union of the diverse is foreign to the unconditioned essence of things. An unconditioned union of the diverse would be, in fact, contradictory; it cannot happen; secondly, a conditioned combination of the diverse according to Laws, though not contradictory and impossible, of course is not unconditioned and cannot, therefore, belong to the *itself* of things. But, as the given world in which the variety is strictly united according to Laws, is the phenomenon of the real in a manner foreign to what the real is in itself, one wonders: what is this foreign element in the given world, its multiplicity or unity?

Either, in other words, the real, the unconditioned in itself, is a unity, a substance, as Spinoza and many others before and after him have admitted; or it is, in its unconditioned being, a plurality, a multiplicity of substances, such as atomists, Leibnitz, Herbart and others claim. We shall see what is to be answered.

We may think that I should have resolved the question of the unity or plurality of the unconditioned before that of its relation to the given world, because the relation of a thing depends on its way of being. But, we only have two data on which reasoning can be based in connection with the essence of the real itself, the unconditioned, namely: First, the *a priori* concept of a real object, an object perfectly identical to itself, and secondly, the manner of being of the given world. As the latter is the only data of reasoning

-242- that belongs to the order of facts (empirical), we obviously have to look for the relation of the world with the unconditioned before concluding from one to the other. For, it is only by the way the given relates to the unconditioned, the real, that we can draw from the former some consequence in relation to the latter. If we proceed otherwise, we would inevitably fall into fallacies which distort our way of understanding things. Thus, Herbart admitted a plurality of reals, or substances, because without prior research, he assumed as self-evident that a given effect is real in itself and must be inferred necessarily. His

great concern was to explain the given, and as "a minimal study of nature leads to a plurality of the real." (*Met Gen.*, I, p. 590), he expressed without hesitation the Principle: "As many appearances, as many signs of being." (*id*, II, p. 79.) But, if we analyze this Principle by means of a syllogism, we arrive at this result: The given is not the real in itself (which is what the word appearance means); the given (the appearance) is multiple; - hence, the real is multiple. This is a manifest paralogism. (1)

(1) This Principle of Herbart: "As many appearances, as many signs of being" makes the opposition of the two ways so obvious - the one we have distinguished to exceed what is given and the inability to follow the other that Metaphysicians try to put forth, that I let it pass without a few reflections. This Principle obviously implies as a necessary premise the belief that being (the unconditioned) contains the sufficient reason of the appearance. Only with the assumption of that premise can we understand this affirmation. And, in effect, Herbart himself adds: "If the real did not act, where would the phenomenon come from?" (*Met., Gen.*, II, p. 68). But, this premise is precisely so obviously untenable that Herbart himself said: "If we understand well that things are not as they seem, we know through this how strongly we must distinguish the falsity of the appearance of truth of being... otherwise, there would be in the being the germ of its opposite." (*ibid.*) "We need, therefore, he continues, intermediaries." This conclusion is extremely significant and very worthy of remark. Although he sees clearly that "appearance" contains something foreign to being or to things in themselves, the germ of which cannot be in that organism or those things, Herbart wants, nonetheless, to deduce the appearance from the being, to explain it by the being; he has thought to erase the fundamental opposition of the truth of being and of the falsity of the appearance by the absurd hypothesis of his "intermediaries" (where do they come from?), because from the beginning, without any criticism, he has convinced himself that the unconditioned, the being, had to contain the sufficient reason of the given: "If the real did not act, where would the phenomenon come from?" Herbart ignored this notorious fact, that every phenomenon implies an antecedent, and so on indefinitely, and that, therefore, the series of phenomena cannot receive any definitive explanation, that is to say, the given can neither be explained by the unconditioned nor derived from it.

-243- We have, on the contrary, nothing to explain; we have only to observe. We do not need to know how the given proceeds from the real itself or the unconditioned; we want only to know how from the way of being of the one we can conclude the other. And, according to the preceding research, it is clear that we will arrive at a conclusion opposed to that of Herbart. From the way of being of the given world,

not the plurality, but the unity of the real in itself, of the unconditioned ensues.

If we cannot pass from the given to the unconditioned by an inference of effect to cause, but only by the consciousness that the real itself is not as we know it by experience, we must necessarily deny the plurality of the real in itself. For, as soon as the given is the representation of the real, not as it is in itself, but in a different way foreign to it, and as, on the other hand, the way of being of the given has the shape of the multiple, we must thus consider this same multiple as foreign to the real in itself. The multiple things of this world do provide proof of it, actually. Because, they prove first, as we have seen above, by their composition, their relativity and even their mutability, they do not have a really true being, they are not "things as such," their multiplicity is foreign to the being of things in itself. And in the

-244- second place, it is further proved by the fact that the multiplicity of objects in this world is conditioned by appearance and illusion (A decisive demonstration of this is given in Part Two.) So, we have to admit that the really true, natural, unconditioned being of things is not a plurality but a unity or substance.

To completely clarify the question, I will give a negative proof of the unity of the unconditioned or substance, by examining doctrines that start from the opposite hypothesis.

I know only three attempts to derive the given reality from a multiplicity of substances: 1. Materialistic atomism 2. The doctrine of Leibnitz and 3. That of Herbart.

The Materialists want to make a Metaphysics of experience itself, of the empirical knowledge. But, if it were possible, Philosophy would be useless. If the bodies really existed, we would perceive the unconditioned immediately and we would not have to look for anything beyond what is perceived since the unconditioned is precisely the background of reality and the limit of all research. But, we see, on the contrary, that the bodies of Science are something entirely different from the bodies of perception. These are imperceptible atoms, or centers of forces of which we cannot say what they are, but only how they behave against one another. Relativity is not an accidental state but the very essence of these atoms. Now, a relative Absolute, as everyone sees it, is a *contradictio in adjecto*. Once we have established that the bodies we perceive are not,

in the way they are perceived, the unconditioned, the actual things in themselves, we should obviously not determine the latter, even if we admit their plurality, by analogy with the bodies that reveal to be non-unconditioned, but only as their concept requires. Metaphysics must, therefore, in no case,

-245- be a theory of bodies. But, the darkness that prevails in the minds of Materialists is so great that many of them downplay Metaphysics, mock the idea of a thing in itself, and consider at once matter, not only as something that actually exists, but even as the only thing that really exists. They have not yet come to the elementary consciousness that actually existing matter would be a thing in itself, a transcendent object, that matter is not in truth a thing in itself because it is not an object in reality but only a kind of idea in the knowing subject. Empiricists who think and are consistent have long recognized that we only purge experience of Metaphysics if and when we deny the existence of bodies.

Leibnitz made an attempt opposed to that of the Materialists; he conceived by analogy with our inner, psychic being the *monads* from which he deduces the world. These monads are ideal beings and stand against each other in a harmony determined by God himself, so that each of them represents in itself the whole universe. But, this theory suffers from the same fault as that of Materialists.

It conceives, likewise, the unconditioned as similar to empirical objects, as relative and conditioned and, therefore, it misses the goal of a metaphysical explanation. If we must deduce the monads from God and assign to them an essential relativity to one another, why not deduce from God the world of experience itself, as it is, or not to make it subsist thanks to him? Why interpolate this pseudo-unconditioned that does not satisfy the concept and adds nothing to the knowledge of the given, since everything in experience would be without it exactly as it is? As Brown has justly noticed, the Metaphysics of Genesis is much more sublime; this Genesis according to which

-246- God said: let there be light and there was light. Doctrines such as Leibnitz's can be used for recreation of subtle minds but have no scientific value; so, there is no need to stop at length to refute them. The objects of experience are not, in truth, unconditioned and we should obviously not conceive the unconditioned by analogy to objects of experience, body or soul.

Herbart, alone, has attempted a derivation of the given from of a plurality of unconditioned monads or reals, trying to empty their essence of all relativity as manifestly contradictory to the concept of the unconditioned. But, Herbart, too, has enmeshed himself in a cluster of logical contradictions and let himself be sidetracked by claims that the simplest conscience recognizes as inadmissible. It is clear that there is an immediate contradiction in the hypothesis that our world, subject to general Laws, consists of real substances, to which all relativity, all mutual relations are foreign, or are derived from them, or explained by them. Not only a mutual action of real substances is inconceivable in itself, as contradictory to the concept of a substance, but the hypothesis of such an action (as we have seen above, p. **232**), is impossible to be used for the explanation of the facts, because nothing of this alleged mutual action of substances is to be found in the entire sphere of our experience.

The only accurate, satisfactory explanation, - provided that the object has one -, the only physical explanation of the facts is offered by the scientific theory which considers our world of bodies as formed by atoms and all natural phenomenon as a movement of atoms and their aggregates. This theory is the only one (from the standpoint of experience) that is correct because it does not suppose any conceivable, external world outside the corporeal world perceived in fact. This

-247- theory, on the other hand, is the work not of an isolated thinker, but, you can almost say, of all scholars. If, indeed, the bodies of our experience really existed, they would also be true substances and the physical doctrine of atoms or rather, as we have already said, the ordinary experience itself would be the true Metaphysics and we would have as little reason as right to seek another. If one accepts, on the contrary, that the bodies of our experience are not real substances, one also sees in our perception of bodies a pure appearance, as did Leibnitz and Herbart, and there is obviously no sense to derive, as the two philosophers did, however, this appearance from a plurality of supposed real substances, but absolutely unknowable, to institute next to the scientific theory of atoms which works and subsists only for Physics, an alleged Philosophy of nature, and to assume, next to the world of bodies that appear, an external world, purely imaginary. Herbart himself, however, rightly said: "What is the use of adding to the given world of senses yet another alleged world? " (*Met., Gen.*, II, p. 162). The hypothesis of a plurality of substances would

have a meaning and a reason only if what is given, the facts, let themselves be explained that way.

But, as in our experience no real substance is given or known, it is childish to try to explain the known, the facts, by something that is completely unknown, by an empty X. In a chapter of Part Two, I shall prove that the facts of perception do not allow us at all to conclude to a multiplicity of causes, howsoever we imagine them.

Such is the negative proof that the real *per se*, the unconditioned, is not a plurality of substances, but one only substance.

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§ 2. Considerations of the simplicity of the conditioned.

But, if the real itself is, it is also simple, that is to say exactly identical to itself, without any diversity in its essence. If, from the identity of the unconditioned to itself and also of its simplicity, we abandon even as little as possible, we thus ruin the concept on which we rely, not only to affirm, but even to conjecture an essence of things distinct from the given reality. But, this is too much, it seems, for human force to focus on such thoughts. Mansel has said: "The almost unanimous voice of Philosophy that says that the Absolute is one and simple must be accepted as the voice of reason itself, so long as reason has a voice in it" (quoted by Herbert Spencer, *First Principles*, p. 42). But, I know nothing of this "unanimous voice" of Philosophy. Almost all who, on the contrary, admit a real or an unconditioned suppose in its essence differences and relations.

The only exception are the Eleatics [The Eleatic School, 5th century BC, so named from the city of Elea in Southern Italy where Parmenides lived, includes Parmenides and his pupil Zeno of Elea,] yet it is contested. Outside the Eleatics, I do not know of a single thinker who has rigorously supported the unity and simplicity of the unconditioned.

I have researched the reasons that make these thoughts so extraordinarily difficult, and I think those are the three reasons:

1. The disposition to assign to the object that which belongs to its idea;
2. The disposition to take our own human being to be the highest type;
3. The disposition to believe that the unconditioned contains the sufficient reason of the conditioned.

None of these provisions has a minimum of objective value.

Let us examine them one after another.

The disposition to consider more real an object whose idea is lively and rich in content, as having, on the contrary, no reality, as an abstract scheme or a shadow,

-249- that whose idea is abstract or poor has, of course, its foundation in the empire that sense perception has on the consciousness. The immediate and invincible manner how what we actually perceive imposes on us, men accustomed to rely on their senses, on the affirmative force of thoughts and conclusions to such a degree that we are not at all surprised to see those whose thinking is not exercised succumbing to it completely. But, the thinkers themselves do not always resist this influence. To say of an opinion: "It is a pure abstraction," is for many the same as saying: "It is pure fantasy, a chimera." But, we have seen in the chapter on the nature of the idea, that the certainty of an idea, that is to say the force of affirmation it contains, is independent of whether it is concrete or abstract, if its object is antecedent or posterior to it. Is it still necessary to say that the truth of an idea has nothing to do with its liveliness or its weakness, its richness or poverty? Regardless of the force with which we represent Sphinxes, Gorgons or fairies, these objects are not gaining the least reality. And, on the contrary, though we cannot forge ourselves any intuitive idea of the states of the solar atmosphere or of the inside of nebulae, there is no doubt, however, that these states do actually exist in the field of experience .

"But in the examples given, someone will say, although we have no intuitive idea of the objects in question, we know they have a substantial content that, under certain circumstances, could be open to a perceptive being, whereas, on the contrary, that which is absolutely easy is, by virtue of its concept, very poor and, therefore, meaningless." The simple would be, in the words of John Stuart Mill, the "minimum subsistence" (*Exam.*, p. 60). The reason is precisely that we are dominated by the tendency manifested in that case, that of

-250- attributing to the object the value of its idea. Our concept of the one and simple is in fact very poor and empty; it only means that which in itself contains no difference. But, by this concept we have no idea of the positive essence of the one and simple. Our experience offers us no object without difference in itself; the simple is not found

in it; how could we, therefore, know how it is made? However, we find even in our experience something that can at least warn us not to confuse our ideas with their object. What I want to say is precisely the intensive magnitude or intensity of the phenomena. That the intensive magnitude be a plurality, is self-evident; because, it can increase and decrease; it is a magnitude and magnitude is synonymous with plurality.

Nevertheless, we see that in the intensive magnitude, for example the sensation of a light spot or an instant sound, we cannot perceive a plurality of individual elements nor any trace of differences, although the force of light or sound increases or decreases in the perception itself (1).

I do not pretend that the unconditioned is an intensive magnitude; I only want to point out that one should not conclude from the poverty of our concept to the poverty or non-existence of its object (2). We have proved the

(1) We understand that this simplicity of sensation is quite different from the real supra sensible simplicity. The former is a temporary phenomenon of the essence of which we cannot conclude anything regarding the nature of the latter. On the difference of simplicity in intuition and simplicity outside of intuition, Kant, in his reply to Eberhard (v. 1st section B) made interesting remarks.

(2) We know that quality is not subject to any quantitative determination regarding the value. What is simple can qualitatively have the highest value, while a worthless object may well spread and even multiply to infinity and remain devoid of any value.

-251- objective truth of the concept that we have of the true, unconditioned being of things, in Book Two, by the unmistakable witness of experience itself; the abstract nature of this concept has nothing to do with our certainty of the existence and elevation of the corresponding object. This object is the only one that is truly real, existing by itself, and the knowable, sensitive world has value and reality so far as it participates in it internally.

The second reason, the tendency to take our human being for the type of what is highest, is as powerful and as little justified as the first. In the *Sophist* of Plato [Aristocles, known as Plato (428/27-348/47),] for example, the foreign Dialectician says, "Can we persuade ourselves easily that movement, life, soul and reason, do not belong to the true

being? that it does not live and think, that it is motionless without the noble and holy reason?" (1)

And Herbart himself, who teaches with such decision that "the quality of being is absolutely simple and incompatible with the concept of quantity," affirms that we must not conceive "God as an absolutely simple being, because simple is completely worthless" (2) (*Small treatises*, vol. III, p. 176). He, therefore, preferred a non-simple God, that is to say a compound, in order to make him similar to humans. But, in this tendency, precisely, to surmise from his own empirical being what

(1) The likely reason is "noble and holy," but only because it contains the concept of the true being, not because it is one of his attributes.

(2) We see from this that Herbart does not talk quite seriously, when he gives for a Principle of knowledge the "simple Real" according to which one must study and judge all phenomena. In the event of a non-simple God, in fact, he shows that the concept of simple Real can be abandoned where it is not enough to provide the desirable explanations. Yet, he marveled at Metaphysicians who claim to conceive God as something superior to being: "How could we, he said, reach beyond the pure being? Talk about the Absolute necessity?" (*Small treatises*, ed. Hartenstein, I, p. 216).

-252- must be the highest being is the mark of a thought that is still in its infancy. Xenophanes [Xenophanes of Colophon (c570-c475),] a long time ago, criticized his contemporaries for representing their gods according to their own form; for this old thinker, already, it was childish to fall into this error and this trend is still as strong as in his days. Even today, those who will not surrender to the prevailing Naturalism know no alternative but to assume a similar Principle to thinking and wanting man, we call God, to be the soul of the world or any other name, but is considered the first or the last reason of all things. To this Principle we attribute the intentions we want, quite to our fancy, without realizing that one is thus dealing with a *Fatamorgana*, a simple image of man's empirical being, so indigent, so limited and so perverted be it. In the chapter of Part Two, titled "The nature and unity of self," I shall show that the conscious being is conditioned by illusion, that our existence, precisely for this, consists in the self-consciousness, because we do not have a true being, a true self and that we would be nothing without the appearance that represents us in consciousness an individual and permanent self.

The conscious being is thus far from having the highest existence, a normal life; it contains, on the contrary, the explicit proof that it lacks the normal way of existence. To be conscious, in truth, is not being but becoming.

The third tendency, the tendency to assume that the unconditioned contains the sufficient reason of all reality, we have talked about and we will return to it in the next Book. It is not even necessary to think much to understand that from one which is simple, cannot issue the colorful diversity of phenomena. It would condemn the hypothesis of a truly unconditioned and simple. "The Eleatic doctrine, said Herbart, for example, deserves the reproach of completely separating

-253- the being from the phenomenon and of not explaining the former by the latter." (*Introd. to Phil.*, p. 174). But, to the eyes of a Philosopher, that is to say "a friend of wisdom", this is not a reproach. Because, the goal of a true friend of wisdom is not to explain but to know, and the disinterested search can as much as is possible lead to this result – at which, indeed, we arrived by our previous research – that the given cannot be deduced from the unconditioned or explained by it, because it contains elements which are foreign to it. The tendency to see in the unconditioned sufficient reason of empirical things can only lead to absurdities, the tendency to look at the abnormal as the normal; we have already proved it and shall still prove it.

Finally, we must also remember that the simplicity of the unconditioned is the only conceivable thing, that it is logically impossible and contradictory to think of it anything beyond that. If the unconditioned is not simple, it must be compounded; but, all compounds undergo an action to come to the state they are in, and an unconditioned produced is a clear contradiction, "No, it will be said, the unconditioned is not compounded by something external, but it is from the outset in itself one and diverse." To say that the diverse, in itself, is originally there, as such, one, and one is, in the same manner, different, is the direct negation of the Principle of contradiction. And this Principle once denied, that is the end of any real thought, because everything is true and false, and any effort to arrive at certainty about any point is lost.

Furthermore, of what elements would a non-simple unconditioned be formed, that is to say, uniting in itself the diverse? Would it, too, be composed of qualities like things of experience? But, a simple quality

is not a thing; So, it does not really have a true being; otherwise, it would not be a simple function of something else. We see, in

-254- fact, that all real qualities in experience (colors, sounds, etc.) are fleeting sensations that come and go and cannot constitute the essence of a thing with a true being, independent of the becoming. Hence, any combination of similar qualities is conditioned and changes as its conditions change, something that in Part Two the analysis of objects of both the internal and external experience will prove. Will it be said that the unconditioned is formed of several normal and permanent things, which exist by themselves? But, while each of these things would be unconditioned, their plurality could not result in forming a single unconditioned. In a word, we see that, just as it is contradictory to the concept of an unconditioned thing to essentially depend on other things or be in internal relations with them, it is also contradictory to contain in its own unit any diversity and, therefore, relations. Because, that would be on either side, going against the Principle of contradiction, according to which an unconditioned union of the diverse, in general, is not possible.



Chapter 5

The phenomenon and the appearance

I have already shown in a previous chapter what is the essence of a phenomenon and why empirical objects should be considered as mere phenomena. I will show how the phenomenon is different from the appearance and what is the essence of it.

-255- "A misleading appearance, said Helmholtz, occurs when the manner of appearance of an object replaces that of another" (*Sc. Popul.*, 2nd Section, p. 55). This is perfectly true; the appearance is, and the error in general, that an object appears as something it is not.

It differs from the usual mistake in this only that it persists even when its falsity is discovered and recognized, which is possible only by the influence of associations in a present perception. There can, therefore, be no appearance but in perceptions, and not, as Kant thought, in pure thought. For example, when flat images appear as in relief in the stereoscope [1], when our own color impressions are externalized, or when the shore before which we sail by boat seems to move, - these are all particular appearances. It helps us not to know that the stereoscope images are flat or that the color sensations are within us; we cannot help seeing in relief in the stereoscope and externalize our color impressions. It is clear that the appearance, as the error generally, is possible only in ideas, because it consists in assigning to objects or to affirm something of them that, in fact, is foreign to them.

[[1] A stereoscope is a device for viewing a stereoscopic pair of separate images, depicting left-eye and right-eye views of the same scene, as a single three-dimensional image.]

The idea has usually two sides. It can be considered according to what it is and following what it represents. Now, as every idea represents something it is not, we can consider, in general, the idea itself as an appearance.

For, even in the case the idea were consistent with its object, it is, as has been proved, something different from it.

The existence of an object in the idea (the fact of being represented) is, therefore, always in fact a kind of appearance, is essentially related to

the appearance. However, in the ordinary use of language, we call appearance the representation only

-256- to which no real, objective object corresponds.

On the contrary, regarded as a real fact, the idea itself is something objective. However, even from this point of view, it is not a thing in itself, a substance, rather it belongs to the world of the phenomenon, which is thus quite different from the appearance as such. As the real as such is one, as there is not actually a plurality of things in themselves and substances, the world of experience never and nowhere offers us anything else than phenomena.

Our ideas, as empirical objects known to us are, therefore, inasmuch as they actually exist, phenomena.

But, we must not, as the Eleatics and Buddhist Metaphysicians and those of the Vedas did, consider the world of experience as a pure appearance or an illusion. By the very fact that something, indeed, may appear, the ideas in which only appearance occurs must be very real. On the other hand, the nature of ideas guarantees the existence of corresponding objects. So, there are real objects which are but mere phenomena.

If the objects of knowledge were things in themselves, all our knowledge would be only pure appearance.

It is indeed a Principle generally received that through experience we cannot know things in themselves. What we claim to know, therefore, would have, in this case, no objective existence; knowledge would be a pure appearance. But, we know that there are real objects of our knowledge, that the idea without object is a contradiction. But, these real objects are not things in themselves, but empirical objects, namely our sensations.

That we know our sensations, or rather their groups, as unconditioned objects in space, is a way of representing them that comes from the nature of the subject and does not agree at all with their true, given essence.

-257- Our knowledge of the bodies thus gives us, in fact, a true appearance, for nothing corresponds to it in reality.

However, this affirmation is not entirely accurate. There exists no body in reality, as we know them, or rather what we know as a world

of bodies consists only of our own sense impressions and their groups. But, we would not take our sensations for the bodies if they were not naturally suited to this way of being, so understood or grasped by the subject (See what has been said above, p. 108). Our knowledge of the bodies is truly a mere appearance, but an appearance to which something corresponds in reality, to wit the natural disposition and, consequently, the conditioned order of our own sensations. Hence, the permanence and regularity of this appearance is a kind of conditioned truth Kant called "empirical Reality". The bodies really exist for our experience as celestial bodies really move from east to west for our perception and Science is absolutely right to make assumptions about the essence of bodies to better explain the phenomena. In a narrow sense, consequently, we do not identify as appearance what seems to us to exist under the general Laws of experience, or what for all the senses and all knowing subjects appears uniformly as an external object, but only that external existence consists of associations of ideas, such as hallucinations, or what, by the strength of these associations, purports to be other than it is, in the case of stereoscopic images, for example, etc. In those cases, the sensation of a sense is thought with other sense sensations, although in reality it is not related with them.

On the contrary, the given itself, that is to say our sensations are not an appearance at all, but real objects

-258- we can have a perfectly true and objectively valid knowledge of, provided we take them for what they are, that is to say for sensations in us and that we search for the Laws of their real relation. This is the side of experience that makes possible a real Science. Skeptics themselves, as Lewes remarks (*Hist. of Phil.*, 1, p. 339,) agree "that the phenomena are real as phenomena," that is to say we can really know them as such. So, if empirical knowledge in its background, however, contains something false, if the empirical objects must be conceived as mere phenomena, there is an element of falsity in empirical objects themselves, not in the knowledge we have of them .

We have already seen in a previous chapter what this means. To say that the objects of experience are mere phenomena, not things in themselves, is to say that they do not really have a true being and, therefore, that they are naturally based on a deception and arranged according to this deception. Precisely because the objects of experience are indeed temporary phenomena, without true being and

consistency, they could not subsist without the deception the strength of which makes them look to our consciousness as normal things, as substances, as a true, permanent and consistent being. The inner experience as well as the external experience are conditioned by this deception. Owing precisely to their mobility, the objects of experience, our sensations, need a consciousness, a knowing subject in whom they unite and remain, if only in images, and in relation to whom all their regularity is organized. Without this relation to the way of understanding of the subject, without the appearance of permanency, which is conditioned by this way of understanding, nature would have no reality, it would have nothing immutable and, therefore, even its subsistence would be impossible.

-259- I hope I have made clear the difference of the phenomenon and the appearance by thus showing their relationship. As the idea presupposes an empirical object to which its affirmations relate, likewise, conversely, empirical objects, precisely because they are only actually temporary phenomena without true being, without internal consistency, suppose the ideas of the subject to whom they appear as real things, as something true, solid, durable and consistent, in a word as a world of substances.

Through our research, we were led to the Principle that seemed to be so absurd to Herbart (*Met. Gen.* I, 285), namely that the phenomenon appears to itself. But, to whom could it appear if not to itself? It precisely divides into two factors that can only subsist by their mutual relations, the subject and the object of knowledge (1). But, precisely this division, and this relativity, are foreign to the unconditioned, to the real in itself. So, it cannot be conceived either as subject or as object of knowledge and we cannot deduce from its essence the way of being of what is knowable. It is with incredible naivety that Schopenhauer (*The World as Will and Rep.*, 3rd ed., II, p. 204) pretends to make the phenomenon a manifestation of what appears, of the thing in itself, and proposes as the goal of Metaphysics to rise from the phenomenon to the thing in itself. It is right to call the empirical objects phenomena, but it is not because a noumenon appears in them, it is because they appear to ourselves, something the noumenon does not. Schopenhauer is obviously deceived by the associations of the word phenomenon, and by the supposition,

(1) Our way of being makes it evident with perfect clarity: we are by the consciousness we have of ourselves and we distinguish ourselves in a subject and an object of consciousness. See in Part Two: Of the nature and unity of the self.

-260- impossible to eradicate that the unconditioned must contain the sufficient reason of the given. However, he had some moments of lucidity when he recognized that the phenomenon is not a manifestation of the thing in itself, and cannot be used to know it.

The real itself, it will be asked, does not appear in the given reality? Indeed, but it appears not as it is in itself, and it is just as if it did not appear in it. The phenomenon is as little the manifestation of the thing in itself as water is the manifestation of the oxygen and hydrogen that constitute it. As the chemical elements present in their combinations something new, a way of being that was previously foreign to them and in which we cannot recognize their true being, likewise, the real appears in the phenomenon in a form which is foreign to it and in which one cannot recognize its true being. But, because this foreign form, this way of appearing, obviously cannot be deduced from the true being of the real, we cannot have any real idea of the relation of Reality itself with the phenomenon. The only thing that we know is, as we saw in a previous chapter, that this relation has no analogy with the known relations and must not serve to explain the world. The phenomenal world is of one piece, homogeneous in all its parts and needs for that no action of the thing in itself (1). Everything in

(1) There are, however, in the world of experience, signs or manifestations of the thing in itself, that is to say, of the true being of things; but, these signs are not physical in nature; they are of an *aesthetic* and *moral* nature. Such, in the outside world, is beauty and poetry, as morality and religiosity are in the inner world. They are not the product of an action of the thing in itself, of the noumenon, but the consequence of the fact that the world of experience, by one side of its being, is related with the noumenon or the unconditioned, participates internally in the higher nature of things, has something in itself of substance precisely because it is the phenomenon of it. In this relationship, there is nothing physical, nothing of the necessity with which a cause produces its effect. It is a kind of super sensible relation, which inaugurates the reign of Freedom.

-261- this world is going according to Laws inherent in the phenomena themselves. To submit the real thing in itself to these Laws in any manner whatsoever, is to make of it an empirical object, to deny or

suppress its concept. But, if we suppress it, we have no reason to accept anything beyond the given.

To see this clearly, there is a triple distinction to make:

1. Empirical objects that are actually given us in experience, our feelings and sensations, their Laws and their change under the influence of other subjects. These are the real "things for us," that differ from their ideas, but are essentially conditioned in relation to our representation, our own necessary way of understanding. These are properly phenomena.
2. The way we know in our temporary feelings and our inner states a permanent self, and in our transient sensations of the external senses a permanent world of substances, of bodies, external to us in space. This is the appearance contained in our experience and which conditions it.
3. The real thing in itself or noumenon, the real substance, the unconditioned which exists independently of us and our way of understanding, which is at the bottom of all reality (excluding the abnormal items thereof) but of which the content of our experience does not allow us to understand anything.



Chapter 6

The true meaning of the relativity of all knowledge

The doctrine of the relativity of knowledge was reviewed and discussed recently in England, with singular

-262- predilection. Hamilton, if I am not mistaken, was the first to sustain it, with great force, without a lot of rigor, though. In the book of John Stuart Mill *On the Philosophy of Hamilton*, there are two chapters (2nd and 3rd) on this subject. The second chapter is particularly interesting because the different shades of this theory are clearly and briefly analyzed. But, I think this distinguished thinker has missed, despite all his penetration, a key point in the affirmation of the relativity of knowledge. Mill believes that relativity consists in that we can know only our own affections and our inner states. Also, according to him, those are the followers of the doctrine of relativity in its extreme sense, who affirm that outside of our own states not only do we know nothing, but there is nothing to know (*Review*, p. 9) This is clearly a mistake. With relativity, we accept an element of falsity, of imperfect objective value of knowledge. The theory of relativity makes sense in the assumption only that things in themselves are not as they are for us, and that we cannot know them but as they are for us. If we deny this difference of the *in itself* and the *for us*, all knowledge, it is true, is relative, but this relativity implies no falsity, no limitation of its value. The knowledge would be unconditionally true.

With the relativity of knowledge, on the contrary, we affirm that our knowledge is not unconditionally true.

The doctrine of the relativity of knowledge was formed in opposition to the usual consciousness, it must be noted.

The man who does not think believes: 1. That he knows things exactly as they are in themselves, and 2. That these things exist, as they are known, independently of knowledge, and are unconditioned objects. The inaccuracy of these two determinations has wakened the early skeptical thinkers

-263- who eventually proposed the theory in review here.

Protagoras of Abdera [c485-c411] already supported the view that man is the measure of all things, of those that are as they are, of those that

are not like they are not, which means, according to the interpretation of Socrates [470-c399] in the *Theaetetus* of Plato, “that something is as it appears to me and it is also like it appears to you”. Thus Protagoras would have taught the doctrine of relativity in its most extreme form. Only, when one extends this doctrine so far, it turns against itself and attributes to our knowledge a value and an unlimited truth in contradiction with the facts. The Principle of Protagoras in fact implies that the knowable objects are not different from our knowledge itself for, otherwise, the knower, of course, would not be the measure of all things. But, if knowledge and its object are not two but are one, there can be no falsity of course, no relativity of knowledge: we cannot conceive, in effect, a relation without two things between which it exists, and not unrelated to relativity. The falsity of this theory becomes evident when manifestly objects differ from our knowledge, and it is so whenever a factual error occurs. Also, Plato already in the *Theaetetus*, has argued that, first all, men think they know the same objects and that if these objects appear, thereafter, different to different men, these several ways of appearing cannot be equally true and, secondly, that if we disregard these common, external, objects to consider only the states and sensations of a man, all is not as it seems to him. Plato rightly remarks that the future course of these diseased states is not as well foreseen by the patient himself as by the doctor who knows the nature of his illness.

Today, still, extreme advocates of the relativity

-264- of knowledge are leaning toward Protagoras’ opinion; because, according to them, the sensations which are the particular objects in reality are, however, not distinguishable from the knowledge we have of them. But, then the sensations are the real thing in itself and there can be no question of falsity in knowledge. How, indeed, could there be disagreement between knowledge and its object, that is to say falsity, if knowledge and object were one and the same? But, this would be in contradiction with the fact that we do not know and cannot know the sensations for what they are, for affections and states in us, but for real objects outside of us. Truly, Empiricism can never agree either with the facts or with the theory of relativity of knowledge. This theory has a reasonable sense only in the supposition that: 1. The knowable objects are conditioned by the very *a priori* nature of the knowing subject, and 2. That these objects, precisely because of their relativity, do not represent the true, unconditioned, essence of reality.

What then do we mean by saying that the knowable objects are *relative* in relation to the subject, are necessarily related to him? It means that, in their essence, there is something that leans toward the subject, an original adaptation to his Laws. But, this relativity of objects would not constitute, already, a relativity of knowledge if it belonged to the true and primitive nature of things to relate to the subject.

Because, there would not be a need to distinguish in things the *in itself* and the *to us*; the primitive way of being of objects would be, in fact, in this case, identical to the way they are *to us*, to the knowing subject. We experience it is not so in that we know the empirical objects as substances in space, that subsist independently of any relation to a subject.

-265- This fact clearly teaches us two things: 1. That pursuant to our concept, any object in itself is unconditioned and independent of the subject; but also 2. That empirical objects are not logically in agreement with this concept, precisely because they are actually adapted to this concept, that is to say, essentially in relation with a knowing subject.

Hence, here is what the relativity of knowledge means: the apparent objects of our knowledge, the bodies, are, it is true, unconditioned as to their concept, but this knowledge has itself only a conditioned truth and value. Because, to our knowledge of the bodies, as we know, do not correspond real things, but only a natural, real, disposition of our sensations, which in fact agree with the way we take them for things in space .

On the contrary, the sensations themselves actually exist, they are the given objects of experience and we can have an absolutely true knowledge, valid unconditionally and without limit, at least when taken for what they are, that is to say for the sensations in us (1); - But these objects are not themselves unconditioned, are not substances or things in themselves; they are mere phenomena, that is to say they represent not the reality as it is in its primitive, unconditioned, essence but in the form that is alien to it, of plurality, of change and of opposition, or the duality of the subject and the object of knowledge.

(1) We are often tempted to understand by 'Absolute Truth' a truth that is not within our reach, inaccessible, something like the knowledge of the Absolute. It is a pure misunderstanding. Absolute truth or unconditioned truth is very

accessible in the knowledge of whatever object and one attains to it by the very fact of knowing an object as it is. And, if the Absolute Truth is so hard to achieve it is that our ordinary experience is conditioned by a natural and necessary deception.



BOOK FOUR

THE EXPLANATION

Chapter 1

Of the explanation in general

To explain is to give the reason of a thing, that is to say to establish its connection with another thing that has been itself proven before. Now, as the proof of a relation is established only by reasoning and as there are two kinds of reasoning, deductive and inductive, any explanation is deductive or inductive. But, however one explains an object, the goal of the explanation is always the same, namely to bring the particular, the individual, to the general.

If the case is of a particular fact, a particular Law, the explanation is always, both for one and for the other, to bring them to general Laws. Whether this is the case in purely deductive sciences which proceed through syllogisms, as, for example, in Mathematics, goes without saying. For, in a syllogism, the conclusion is nothing but the expression of the logical relation that supports the data contained in the premises. As a given number of data can be related in various ways, it is clear that the number of conclusions exceeds that of the premises and that the latter are more general than the former.

-268- In the deductive sciences, there is no difficulty in understanding why the general supplies the explanation of the particular and the individual. Because, in these sciences it is the most general that is immediately certain and everything else can be ascertained only by its means. But, how is it that in the field of pure experience in which only individual facts are given, we cannot limit ourselves to these facts, and that we do not believe to fathom them before we have known the most general Laws of their relation that are, however, deduced from the facts themselves? How that which is derived can provide the reason for that which it is derived from? Here is the answer:

When each individual, given element has with no other any essential connection, it is neither necessary nor possible to explain it. The thought does not try to exceed this element to reach another, to explain the first by the second, because everything that could be known in this case of the element in question would be concentrated in itself. But,

never and nowhere is a given element so isolated in its being. The instability, the mutability *quasi* constitutive of all given phenomena, as we know by an *a priori* reason, is already a sign that they depend on conditions and their mutual connection. But, the binding of a datum with another can be known empirically only by induction, so far as they always occur together in perception. Since we can never be sure that an individual datum of today is identical to a similar datum of yesterday, we cannot talk about the numerical identity of the particular, but only of the identity of the essence of several phenomena. This is the only one that serves us in our inductions. The possibility of knowing a connection of the particular rests, therefore, on that there is in nature an identity, an agreement in the essence of many phenomena, that is to say

-269- a general element, which is the same at several times and in several places and consequently lets us expect the same thing.

To explain the particular is always to bring it back to the general.

Experience shows that there are cases where the connection of two facts is the result of an intermediary and that there are two kinds of intermediaries.

1. A fact may be the product of several causes. The simplest example is called the parallelogram of forces. If two bodies act upon a body in different directions, the body moves in the direction of the diagonal of the parallelogram that is constructed by taking as sides the directions of the two forces, the length of these sides being determined by the respective energy of these two forces. The resulting movement of the body is then explained by means of this composition of the two movements to which the body were subject if it were first moved by the first force and then by the second.

2. Another kind of intermediary occurs when an antecedent is bound to a consequent not directly but by means of a third. Discussion of these two cases is in the *logic* of John Stuart Mill, in the chapter titled "Explanation of the Laws of Nature," of which I only quote the following passage: "A appeared to be the cause of G, but we later recognized that A was only the cause of B which was the cause of G; we knew, for example, that by the contact of an external object a sensation was excited, but then discovered that by this contact and before we experience sensation, a change occurs in a kind of cord called nerve that goes from the external organs to the brain. The

contact of the object is, therefore, only the remote cause of our sensation, that is to say not the cause itself, but the cause of the cause; the real cause

-270- of the sensation is the change in the state of the nerve "(*Log.*, I, p. 521).

The explanation of a connection thus produced consists, therefore, in discovering and showing the intermediate term that first eludes observation. The difference between the two kinds is, therefore, as we see, in that in the first case the intermediary is simultaneous while it is successive in the second.

The concurrent causes are simultaneous with their effects; on the contrary, the element that unites an antecedent with a consequent is in their succession.

Thus, all explanations consist in reducing the particular to the general, the compound to the simple, and the change to the constant. What we want to know is the connection of a particular fact with its reasons or its real conditions; but, this is only possible by induction if there is a binding Law, and a derived Law in turn demands for its explanation the primitive, general Laws of the immediate connection, of the interference from which it proceeds and which are themselves, as immediate and primitive, immutable.

We have shown that the world in which the diverse unites according to Laws is pure becoming and, on the other hand, everything in the becoming is necessarily related to specific antecedents. Hence, we only need to explain that which belongs to the becoming, which is, in its essence, a simple phenomenon, not a being in itself. For, the knowledge of what happens, we have already noticed, there are two things to consider: 1. The way of being of that which is such and not other; 2. The fact of its production. Hence, any scientific explanation must contain two moments: 1. Derive the fact of the nature of the elements that condition it, and 2. Derive this same fact from a certain previous state of these elements that we take as a starting point. Thus, to give the clearest example and the simplest, the Newtonian Law of gravitation

-271- explains the motion of celestial bodies in our planetary system on the supposition that these bodies, at determined distances from each other, already have a motion of a speed determined on the tangent of their orbits. This explanation, therefore, takes for granted not only the

attraction which belongs to the essence of the body following a specific Law and their respective masses, but also their real distances relative to each other and their own movements.

The hypothesis of Kant and Laplace on the formation of our solar system goes back much earlier and deduces the current states of different, previous states when the entire system was only a less dense spherical mass occupying a very large space with a rotational movement. This assumption, in turn, does not take in the Principle of explanation the qualities and Laws of the bodies, only, but also a certain condition of the bodies. We shall see how far an explanation in both directions goes and to what extent it can satisfy the mind.

It is clear that the empirical, scientific, explanation of the given reality reaches its final goal when it succeeds in discovering the primitive elements of all that is, in scrutinizing the most general, immediate Laws of their action or of their mutual relation and is able to deductively derive from these elements and these states the given Laws of things by assuming a previous given state, as did the Newtonian theory for the motion of celestial bodies. Science can achieve nothing more in a general thesis for all things and facts that the doctrine of Newton has done for a particular area of these facts. Science cannot therefore: 1. Explain the primitive elements and the most immediate general Laws of their action; 2. Demonstrate an absolutely first state of these elements in which all subsequent states would have their absolute origin.

-272- But, it is asked, why seek this primitive state?

By what right do we go so far in explaining the phenomena?

Regarding an absolutely first state of things, the right to look for one is as clear as day. For, no deduction is final while the reason it starts from is itself derived. The state of things we begin with supposes other previous states, and then the same need that had pushed us to know the connection of the following states with the first, or to derive them from it, leads us to ask what is its connection to previous states. But, not only we cannot actually reach a first state, but the Law of causality itself that forces us to admit a connection of the successive states, to link the consequent to the antecedent or derive it, forbids us to assume, even by abstraction, an absolute first state. For, this Law precisely means that no change can occur if another did not precede it and,

therefore, a first change is absolutely impossible. There is, here, a real contradiction which we shall deal with in a later chapter.

But, the reason why the the thought does not stop at the knowledge of the primitive Laws of existence is, first, that these Laws manifest something that can never be given itself in perception, namely the connection of phenomena inherent in their essence (1). The Laws

(1) "To explain a Law of nature," says Stuart Mill, "is simply to substitute one mystery for another; the general course of nature remains as mysterious because we cannot assign a reason more to the most general Laws than to particular Laws. The explanation can put a mystery that has become familiar and which consequently seems no longer a mystery, in the stead of one that is still strange to us" (*Log.*, 1, p. 530). But H. Spencer makes a mistake when he says: "It is obvious that since the most general knowledge we have reached cannot be reduced to a still more general, it cannot be understood." (*First Principles*, p. 78.) The most general knowledge could be self-evident. By a similar mistake, Plato, in the *Theaetetus* says that elements that cannot be reduced to other subsequent elements are for this reason obscure and unknowable, even when we could conceive them. One thing, indeed, may well not be susceptible of explanation and at the same time, not to need it. If, for example, we could perceive the elements of reality, we would, however, not be satisfied; but it would not be because it were impossible to relate them back to others, but because we would have to assume still in them something mysterious and that perception cannot reach, namely their internal connection. If we conceive, on the contrary, these elements as entirely separate, without a mysterious relationship with each other, we would have the perfect knowledge and fully satisfactory because this perception would allow us seize all their nature contains, without leaving anything impossible to grasp and conceive.

-273- are not themselves what binds the diverse; they only express how the internal connection, inaccessible to us, of the phenomena is manifested in their perceptible relations. We call this unknown link of things power, strength, might, etc., without getting to know what it is. For, as what unites internally the phenomena is an empirical object, a part of the world of phenomena and can be concluded from it with certainty by induction, nothing, though, of what we perceive allows us to reach by reasoning a clear idea of this object eternally unattainable to our perception.

But, it is certain that even when we could have an immediate intuition of the internal connection of things, this, however could not satisfy our thought. Because, the way of being of the things in which the diverse is united (is in mutual relationship) is, as we have seen, abnormal and

conditioned by an illusion. The physical explanation of things, therefore, cannot be definitive, because it is based on the perception of the bodies which is itself a pure appearance. All physical explanations thus have only a conditioned, empirical, value, resting on what the actual content of

-274- experience (that is to say the content of our sensations) is consistent and appropriate to our way of viewing the world as a body in space. As a result we have to, from the point of view of experience, derive all or try to explain as much as possible, according to the nature of the bodies, but not to believe that this explanation has a metaphysical value or that it definitely satisfies our thought. A definitive, metaphysical, explanation of the given reality, its deduction from the unconditioned is impossible. For, change and illusion that penetrate and condition the given reality are foreign to the normal, unconditioned, essence of things and cannot have in it their basis. Thus an unconditioned first cause, of the world's production or changes succeeding in it, and an unconditioned reason of their regularity - which is already conditioned by the illusion, that is to say appropriate to our way of conceiving sensations as bodies outside of us - are inconceivable, as I shall indicate more fully in the course of this work. Even though we would perfectly know the essence and Laws of the objects of experience, we would not understand them yet, because their nature is abnormal and does not accord with our concept of the really true and normal essence of things. We cannot even know our own self, although we are this self itself, because it does not answer to the *Norm* of our thought. We give more details in Part Two.

We must, therefore, distinguish between the different meanings of "comprehensible" and "incomprehensible". We sometimes say that a thing is incomprehensible, because we do not know how it happens. For example, the tricks of a juggler are incomprehensible to those who are not initiated, in the sense they do not know how they are done. But, everyone knows that everything happens most naturally

-275- and that things can be perfectly explained. The explanation lies in the statement of the natural reasons or Laws according to which these events occur; we have spoken above of this kind of explanation. Secondly, any logical contradiction is incomprehensible, but in another sense. The logical contradiction, the unconditional union of the diverse, cannot really be conceived or be represented as actually existing because it is irreconcilable with the fundamental Law of our

thought and the nature of things. Thirdly, all is incomprehensible, without opposing directly or contradictorily to the Law of our thought, that which does not agree, however, with it. In this sense, the whole empirical world and its regularity are incomprehensible because it is abnormal, because it represents the union (conditioned) of the diverse, contains not the being, but a pure becoming, and is conditioned by an illusion.

Incomprehensibility is very far from being synonymous with non-cognizability. The unconditioned is unknowable yet understandable at the same time; furthermore, it is the only thing understandable there is. Because, the unconditioned is an object that meets the *Norm*, the fundamental Law of our thought, that is to say, has a being that is really its own, not borrowed from outside, and that is perfectly identical to itself. On the contrary, the empirical objects, although knowable, are not understandable because they do not meet the *Norm*, the fundamental Law of our thought. The unconditioned needs no explanation, because it, itself, is considered the supreme explanation. All attempts to explain the given reality absolutely are nothing but attempts to derive it from the unconditioned. The incomprehensibility of the world so given is that it cannot derive from the unconditioned and cannot be conceived as agreeing with

-276- the *Norm* or fundamental Law of our thought. It is, therefore, impossible to be fully satisfied by listing the reasons for what is given (1).

But if, by *going back* to Principles, we cannot satisfy ourselves fully, we can achieve it by *going down* from Principles to consequences. For the premises once given, the consequences are deduced by substitution of like to like, or the identical to the identical.

The fundamental axiom of every syllogism, namely that of identical things we can affirm the same thing, is an analytical Principle, obvious of itself, which offers no difficulty to our thought. Also, although new Laws of relation, unknown or at least unconscious to thought, be discovered by the syllogism, they do, however, cause us no new embarrassment; they seem, on the contrary, quite understandable and clear, because all the incomprehensibility impenetrable to thought is found in the hypotheses and the fundamental facts, not in the process of deduction.

(1) When in Part Two, we come to the analysis of the empirical world, its incomprehensibility will be better established.



Chapter 2

The Principle of sufficient reason

The need identified in the previous chapter of asking ourselves the reasons why what is given is has made us conceive a general Law under the name of Principle of sufficient reason, which is sometimes asserted in this absolute form: for everything one must give the reason why it is rather than

-277- why it is not (1), and there is a recent proof that the excessive extension of the Principle of causality does not belong only to the history of the past.

Schopenhauer, indeed, considered the Principle of sufficient reason as a Principle that is above scrutiny. "To ask, he said, a proof of the causal Principle is to show a lack of reflection. All proof, in fact, is the presentation of the reason an expressed judgment, which receives precisely the true predicate from it, and the Principle of causality is precisely the expression of this need of reason due to any judgment (2). He who asks for a proof of that Principle, that is to say, the presentation of a reason, supposes it true for that very reason, and bases its request on that assumption. So, here he is in a circle and forced to ask for a reason for the right to ask for a reason." (*Quadruple root*, etc., p. 23).

We must then regard as obvious in itself to say that everything must be derived, must have a reason. But, far from being obvious, it is rather absurd. For, if in the realm of thought, there were nothing immediately certain, that is to say without reason, there would not be any mediate certainty, any certainty based on reasons, either. And, if there were not in the realm of reality something unconditioned, that is to say, existing for no reason, there would be nothing that could be the reason for anything else. There is no Law or innate need of our thought to seek the explanation of things - as a general Principle *a priori* would insinuate

(1) Spinoza indeed affirmed (*Ethics*, Prop. VIII, Sch. 2) that "for anything there is a cause or a reason that explains why it exists and why it does not exist" without thinking that if reasons are necessary for the existence of a thing, the absence of these reasons is a sufficient reason for the non-existence of this thing.

(2) Two lines earlier, Schopenhauer said that there are some propositions, whose own certainty does not need to be given by other propositions.

-278- from sufficient reason; - but, on the contrary, it is because the objects of experience are inconsistent with the fundamental Law of our thought that we feel inclined to seek an explanation of them. It is not self-understandable that all that is real must have a reason, must be derived or may need an explanation; that is, on the contrary, because the things of experience are not obvious in themselves, do not accord with the Law of our thought, that we ask for the reason, the why and the how. The Principle of reason is self-evident of itself only in the tautological form of the affirmation that anything that is not immediately certain or existing by itself (unconditioned) must have some reason for its certainty or its existence.

The only obvious proposition by itself is that which expresses *the Principle of identity*, namely that all being, in its own essence, is identical to itself. It can happen to no one to ask - why an object must be identical to itself. For, it is immediately evident under the original Law that constitutes the essence of our thought. If the objects of experience agreed with this Law, all that is given would be identical to itself, and then there would be no need to wonder why and how of anything. Everything would be understood of itself. The transition from one object to another, a derivation from one to another, would be neither possible nor necessary. Everything would be perfectly clear in itself. It is because the property of depending on reasons and the need of an explanation are foreign to the normal, unconditioned essence of things, that we are authorized and forced to ask not only the why and the reasons for any conditioned object but why in general anything depends on reasons and needs an explanation. Only, we cannot give to that last question a satisfactory answer.

Since the fact of dependence on reasons (to be conditioned) is

-279- foreign to the normal, primitive being of things, there can be no reason in reality. This leads us to see not only that there are things – at least one thing, the unconditioned - not dependent on reasons and that do not require an explanation, but also many things that, due to their essence, presuppose a reason, but have not any; this is the case in particular of those elements of the given reality that are foreign to the normal, unconditioned essence of things. These elements need an explanation and cannot, however, receive any (1).

We must now seek what is the sign of what is derived and depends on reasons. There must be one because, otherwise, we would not know what of its essence is derived. Dependence, in effect, of an object with respect to another is never given in perception.

All derivation supposes succession. For, what is not produced, what has no origin is, therefore, without a reason. I have already shown this in the chapter entitled Being and becoming and it is useless to insist upon it. The Principle of reason is, therefore, nothing other than the Principle of causality, according to which no production, no change is possible without a cause.

And I showed by the derivation of the Principle of causality that it was not immediately certain, that it is not obvious by itself.

Even in the domain of consciousness, the relation of Principle to consequence is a relation of succession, of that which is thought before to that which is thought after. The reason for a knowledge or a judgment is that through which consciousness comes to that knowledge or the finding of certainty. However, the relation of antecedent to consequent is not here absolutely one of the simple causality.

(1) See the next chapter, and especially the last chapter of Part One.

-280- There are reasons that are not simple causes, or, in other words, there are Laws that are not physical in nature. I have already shown above that the natural belief in ideas is not a physical event, a physical property, and that the Laws according to which the belief (the conviction) is to be produced, that is to say, the true, normal, Laws of thought are not of a physical, but a logical nature.

We must, however, still insist here on this difference.

We know that people believe and often judge falsely, worse still, that belief and false judgment are even more common than the true. Regarding the reason of false judgments, we can say they are the effect of causes acting according to the Law of causality manifested in the physical. If a body moves because it was hit by another body, if someone believes something because he was compelled by an inclination, an authority or habit - these are on both sides cases of ordinary, physical, causality. But, we cannot say the same of true belief and true judgments. If we see the truth of a theorem and

recognize it because we have conclusive proof, the proof is probably the cause of our belief or our conviction but, we well understand that this proof is not a physical cause, that it does not act on our belief according to a physical Law. What shows it clearly is that the effect of a physical cause can be destroyed in whole or in part by another cause, whereas our belief in the truth of a well proven theorem cannot be negated by any cause, unless it deprives us of any sense. Moreover, when our salvation would depend on an error, we could not, once we had clearly seen its falsity, take it for a truth.

So, we are dealing, here, with a force which differs *toto genere* from a physical force, a force whose action depends not on

-281- its physical energy, but on its higher exactness.

Outside the logical Laws, there is still a Law whose efficiency also depends, not on physical energy, but on its higher exactness, it is the moral Law. Whether one is conscious of the high value of logical and moral Laws or feels obliged to conform his thoughts, his will, his actions to these Laws, despite all the causes or all contrary motives, this proves that man is not only a physical being. But, man is also such a being and subject to natural Laws and, consequently, the greater value, in him, is often overcome by physical force; the result is error and evil.

But, we are not, here, talking about man and his nature, but of the Principle of sufficient reason. The above explanations are meant to make it clear that there are reasons that are not natural causes, or, in other words, that there are Laws that are not physical Laws of nature or natural Laws. We must, therefore, distinguish two kinds of reasons, physical and logical, reasons of being or becoming, and reasons of knowledge and belief.

But, although there are reasons that are no simple causes, there is no "Principle of reason" different from the Principle of causality. Apart from the changes, in fact, there is nothing in the world in general of which can be said that it has causes or reasons. And, in particular, it is not true of judgments. For, if there were nothing immediately certain, if there were no judgments without reason from the point of view of their certainty, there would be, as we have shown, no certainty, no certain judgment. It cannot be a first foundation of becoming; the first foundations of knowledge, as such, are found, on the contrary in the

immediate certainty. With the immediately certain all knowledge starts; it is then based on

-282- immediate perceptions. As events in reality, our knowledge and judgments belong to the realm of general becoming and, like everything that becomes, they suppose invariable antecedents and causes to infinity; but, as knowledge, as judgments, they have their first foundation in what is immediately certain.

The confusion of the real reasons, that is to say of causes, with the reasons of knowledge has already occasioned more than one misunderstanding. Thus, one is willing to consider as sufficient reason that which produces consequences, that which draws them out of itself.

This is because, in a syllogism, the premises produce in some way the conclusion to our consciousness. The conclusion is already in the premises and it is enough to draw it out by comparing them; it is precisely the simplest expression of the logical relation in which are the mutual data expressed by the premises. Now, we unwittingly apply the same approach to the reasons of becoming, which we find or assume in reality: it seems that one could conclude from the nature of the cause why it precisely produces such a result and not another, as in the syllogism the premises allow to see why they authorize such a conclusion and not another.

But, this is obviously a confusion between the logical, intellectual, consequences and the real consequences. Considering a general Law as the basis of particular Laws, which are more proximate specifications in specific circumstances or conditions, we can without doubt understand one thanks to the other. That the falling of bodies on earth and the movement of planets around the sun are the result of the same Law that is the foundation of the Laws of motion given by Kepler - is logically clear; because, this follows from the mere assumption of relations and facts given to the Law of gravitation. But the relation

-283- of a cause to its effect is quite different from the relation of a Law to its specifications and its consequences. The cause does not precede the effect in the order of logical conception, but in the real series of the succession, and conversely the general Law is not the real basis or cause of particular Laws and facts that are subservient to it, and these are not the consequences or effects, but only cases, examples and more precise specifications. Hume and Brown have already shown that in

the nature of a given cause, we can find no basis to predict what effects will follow.

The relation of cause and effect cannot be known, therefore, but by experience, that is to say by the fact of its constant sequences. But, it is impossible to guess that any real object will produce another like it. One cannot even remotely form the idea of such a production. The real foundation or cause of an effect is nothing other than its constant antecedent in existence, and this reason is sufficient if it is always accompanied by all the effect and if more distant antecedents are not necessary to condition the occurrence of the effect.

But, here, it is feared that we fall into the opposite error, which happened precisely to Hume and Brown. Because, we do not know the reason why specific causes are accompanied by certain effects, these thinkers have generally denied the existence of such a reason. It is obviously to reject the good with the bad.

The reason for the fact that a particular cause does brings with it but one effect is not more in this cause than in the effect itself; it is in this we see what links cause and effect. The fact that specific phenomena are always linked to each other cannot mean anything other than their mutual connection. I have already repeated that the belief in the value of the induction is equivalent to the belief in a real connection of the phenomena. For

-284- induction is nothing more than the conclusion of a constant occurrence of phenomena similar to a mutual connection of these phenomena.

In truth, the hypothesis of a force, of a particular power in an individual object to modify other objects or produce effects in general, is quite untenable.

In fact, the force, the power to effect change can never be the property of an individual thing as such, for, otherwise, this thing would be an unconditioned cause, and such a cause is inconceivable. But, it does not follow that the force in general does not exist. If it does not belong to an object in its isolation and individuality, it nevertheless belongs to objects in their mutual relations, as evidenced by experience. The force is not, it is true, an individual cause itself, the quality of a particular object, but, indeed, the real basis of all the causal relationships between objects of experience in general.

These thinkers seem not to have understood that. Brown sarcastically said about this: "All we really know of causality, it is a simple immutability of succession; but we always believe that there is still something to discover down there... something dark, mysterious... that produces all the change we perceive, except the one by which this something would itself become an object of our perception." (*Cause and effect* p. 124) - He forgets that, precisely, the immutability of the succession does not mean anything other than a bond of the successive, which we should regard as necessary although we never perceive it. To demand that this link itself be perceived, is to ask that what is the basis of any causal relationship present itself as a factor of a causal relationship, and that is absurd.



Chapter 3

What is denial in reality

It is a sad and disturbing fact that in Philosophy lessons are of no use. We see some, even in the simplest questions and the most basic, reproduce and affirm opinions whose falsity is obvious and has been a hundred times established. If it were not possible in this area of research to arrive at accurate and positive results, at least nothing should, apparently, prevent us to avoid error and false assumptions. But, man, according to the remark of Francis Bacon [1st Viscount of Saint Albans(1561-1626),] has a natural tendency to believe and affirm which leads us to believe and affirm with the risk of being mistaken, instead of resting, like Socrates, in the consciousness of our ignorance about such and such subject of research or, which would be better, instead of continuing our investigations more carefully and critically.

An example of this inexcusable mistake is the confusion of the logical negation and the real negation. It seems incredible that men who think, much more, Philosophers, could have considered affirmations and negations that we make on objects in our thoughts and their expressions as something inherent to these objects. We would have just as much reason to consider the words by which we express our affirmations and our negations, as part of the nature of the objects in question. Water is not copper, a horse is not a sparrow; these are, as even a child can see, not negations in the objects themselves, but in our thinking only that compares and highlights their differences. Nevertheless, whole systems were founded on the objectification of logical negations, and

-286- the mistake still lasts. Such is the opinion of Ulrici [Hermann Ulrici (1806-1884)] (*Logical Questions*, 1870, p. 70): "The negations in the being have the same meaning as in thought," and conversely; "For, what is in the being determination is the difference in thought... A certain being (that is to say something) can only be and be conceived by the negation, by the differentiation with respect to another." Hence, it follows that a real object is to lose its particular determinations and qualities if all other objects move away and, if left alone, it is unable to be compared to any of them.

Spinoza gave the most concise expression of this error in the famous proposition "*Omnis determinatio est negatio*." [The determination of all is negation.]

Herbart rightly said about this (*Metaphys Gener.*, I, p. 493). "Spinoza takes the negation that we enunciate, when we oppose a thing to another, for a negation in the things. With this confusion, it is not surprising that precisely what we pose as finite, that is to say finished and complete, is taken for an infinite, in the sense that if it lacked something, we could still add to it."

The particular consequence of this objectification of the logical negation is that we need to take as real only what is lacking determination altogether, or unites in itself an infinite wealth of determinations and predicates. We would be led thereby to represent an *Ens realissimum* [a most real entity] as the total of all predicates and all the existing realities in fact and that Kant himself takes as an ideal of reason "based on a natural and involuntary idea." (*Crit., Pure R.*, p. 468). Kant saw, it is true, in this ideal nothing more than a regulatory Principle of reason; but, Pantheists, following his example, very well adopted this imagination and in our time still, Mansel [Henry Longueville Mansel (1820-1871),] for example, has affirmed that the Absolute and the infinite (two incompatible things properly)

-287- can be nothing less than the sum of all realities," which contains in itself everything "that is actual, including evil" (1).

Let us see how Kant justified this singular point of view. We read in the *Critique of Pure Reason* this among other things:

"The Principle: Every existing thing is universally determined, does not only mean that from each pair of opposed predicates given, but that of all the possible predicates one fits it... So, it is the same as to say that to perfectly know a thing, you have to know everything possible and determine it either by affirming or denying."

From that derives "the idea of the whole of all possibility" which, looking at it closer, "turns into a universally determined concept *a priori*, and thus is formed the concept of a particular object which is universally determined by the simple idea and which, therefore, should be called an ideal of pure reason." (p. 463).

The relativity of given objects results, it is true, in that we know not an object until we properly know its relations with all other

objects; because, the qualities of known objects are just the ways they behave toward others. But, Kant and the Pantheists obviously do not here refer to the actual relativity of things but only to that resulting from their closeness in a thought that compares them (2). A man can know many objects and assume *in abstracto* a legion of quite unknown objects, present or possible and, then, without doubt

(1) Quoted by Stuart Mill, in *Exam. of phil. of Hamilton*, p. 110.

(2) Due to the fact that, in effect, the relativity of empirical objects is foreign to the unconditioned being of things and, therefore, to the *Norm* or ideal, it follows, as we have proved at length above, not that the ideal unites in itself all the possible predicates but, rather, that it contains within itself no multiplicity of predicates, no diversity, that it is simple, on the contrary, because it is exactly identical to itself.

-288- he observes that an object is not like another and that in it many of the qualities of other objects are lacking. But, what does this have to do with the actual objects themselves or with the knowledge we have of them? Is my knowledge of an inkwell perfected because I notice that it is not a nightingale? And what about the idea of uniting the various ideas of attributes in the mind of a man to the idea of an object outside of his mind, and the idea of a first cause? That there is here nothing making sense, Kant himself noticed it, for he said: "As we cannot say that a primitive being consists of a multitude of derived beings, since each of them supposes the other and, therefore, cannot constitute it, it follows that the ideal of the primitive being should be thought of as a simple ("simple: " that which possesses all the attributes possible?). The derivation of all the other possibilities of this primitive being will not be, strictly speaking, a limitation of its supreme reality or as its division. The highest reality would rather be as a reason than as a combination of the possibilities of all things." (p. 467)

Thus, Kant began with the idea of total to get to that of reason, without any other transition than the one we saw. But, the idea of reason is obviously quite different from that of a total. As we confusedly imagine that we must admit some reason, the idea of a difference between this reason and its consequences necessarily enters and, thus, we deviate from the pantheistic idea of unity. But, it has always been the same in Pantheism: the unity of the cause and the world is affirmed but one does not stop looking at this cause as something different from the world.

It is easy to dispel these bizarre imaginations if we show what is, in truth, a real negation and how it differs from a logical negation.

When an object lacks something that does not belong

-289- at all to its nature, there is not the slightest defect and there is no negation in the object. There will be negation only in the thought which, apart from the qualities of this object, knows of others and considers they are not present in the object.

But, if an object lacks something that belongs to its true nature, then there is a real defect, a real negation in the subject that we must carefully distinguish from the logical negation. - Who would consider it a defect for the man to have neither horns nor tail? But, if a bull lacks them, we look at it as a defect. The reason is clear. Horns and tail belong to the essence of an ox, not that of a man. The perfection of a thing, therefore, does not consist in that it has all the qualities, possible or real, but only in that it has all all those that belong to its nature.

Yet, it is not very clear in the case of horns and tail if there is a real negation because this concerns the external appearance of the animal and not its inner constitution. But, should we consider any pathological state of the mind or the body, all deprivation of the normal states of a living being, it will be granted that a living being in such a state is no longer quite itself. In particular, a disease of the soul is like a complete alienation of being compared to itself. A madman and a mad dog can be identified with their previous personality only by signs and external qualities.

But, a real negation can still consist in that, in one thing, there is that which does not belong to its true being and should be denied. And, in truth, any real negation can be reduced to this latter definition. For, if an object lacks something that belongs to its nature, it is a fact that is foreign to it, as such, or does not belong to its normal way of being.

-290- The presence of such a real negation in a thing forms in it a contradiction that differs quite completely from a logical contradiction. If an object contains something that is foreign to it, it obviously is not quite identical to itself and this lack of identity is a real contradiction, a lack of agreement of the thing with itself. But, this relationship would not constitute a logical contradiction unless this element foreign to the thing belonged, however, to its own essence, which is, like all logical contradictions, impossible and inconceivable,

although some Philosophers and Hegel in particular, have seriously affirmed it.

We see, therefore, that perfection does not mean anything other than the normal nature of a thing, that is to say the nature of what is really identical to itself. For, all defects, all real negation in a thing, is a disagreement of this thing with itself and shows the presence in it of elements and influences that really do not belong to its being.

To say that an empirical thing is imperfect is, therefore, to say that its nature is not normal, that it contains a negation, that is to say something which is in itself foreign to the nature of the thing and that, therefore, it lacks the true identity to itself. – But, we have proved that the concept of conditioned has the same meaning, that is to say refers to the presence of something alien to the nature of the thing in itself.

All that is imperfect is thus conditioned, everything conditioned is imperfect. Conditioned and imperfect are two specifications of a higher common concept, namely the lack of identity to itself in empirical objects; but, this absence is manifest in both cases in a different way: first, in the dependence of empirical objects with regard to conditions and, second, in the fact they deny themselves and thus provide the positive

-291- proof that they do not have a really true being, a true identity. Here, we again see that the opposition between the unconditioned and the conditioned is the same as the contrast between the normal, perfect, really true nature of things and an abnormal, incomplete way of being, denying itself. (1)

It is not enough to refute false opinions about this and give a true interpretation; we must also look for where the error comes from. How did we get to see in any determination a negation and to consider, as a result, the unconditioned, either as a monstrous assemblage of all these qualities, or - what is more ordinary - as an "infinite," when the unconditioned and infinite concepts are, on the contrary, mutually exclusive? The objectification of the logical negation did not produce this result, alone or rather it, itself, depends on a deeper reason that we must show.

The real reason is the natural illusion that makes the objects of experience appear as substances, that is to say as unconditioned things, endowed with a true being.

Man so reduced to the appearance believes that an empirical object, the self, for example, is in its unity a substance, that is to say it is unconditioned, whereas with a little attention he cannot help seeing that at every moment of his existence he is conditioned and dependent on external conditions.

He is, consequently led to believe that any determination in the objects is a negation, that is to say precisely a negation of their substantiality. So far as the objects of experience are concerned, it is perfectly true in the sense that the objects of experience are not actually real substances, real

(1) The tendency to think of the unconditioned as perfect - and the idea of God unites these two concepts - is entirely justified; it is the result of a true intuition. On the contrary, we have always deceived ourselves when we wanted to determine further the idea of God. This is what we will see better in what follows.

-292- things but mere assemblages of qualities, of simple phenomena. But, most of the time we understand this negation all wrong. From the fact that in all particular determination, the empirical objects are conditioned, we do not conclude that these objects are mere phenomena and not substances, but that all determination in general is conditioned and must be, therefore, foreign to the unconditioned.

This is also the reason that leads people to consider the unconditioned either as the totality of all reality which contains in itself all the qualities mixed with their conditions and yet is a unity, or to conceive it at least as an infinite. We shall return to the first of these hypotheses in the next chapter. Let us, now, explain the second in a few words.

What do we mean when we say of the unconditioned that it is infinite? It means that the unconditioned is both determined and not determined, that it has positive qualities which cease to be determined by lack of limitation.

It is difficult to understand a way of thinking so obscure and contradictory and we understand it only by its motives. A real object must have a fixed nature and everyone feels it, though darkly. This brings us to the hypothesis that the unconditioned is determined *qualitatively*, it is true, but that its qualities are *quantitatively* non determined, without limits, endless. In this way only do we think we can conceive them as unconditioned, despite their qualitative

determination. In truth, the unconditioned is not only *not* infinite, but rather simple and internally unrelated to any plurality, to any quantity. After all the explanations I have given above about the true concept of the unconditioned, I would not need to refute these false theories any further. I must do it, however, to make the subject clearly understood, and I beg the reader not to get angry if I add the following chapters.



Chapter 4

Pantheism or confusion of the unconditioned with the general

In the last chapter, I have shown that the facts establish, not the plurality, but the unity of the unconditioned or substance. I also proved that any attempt to deduce the given reality of a plurality of substances or explain it by this plurality must fail. There is no need to return to the hypothesis of a plurality of substances. We will now only review the metaphysical doctrines which conceive the unconditioned as a unit and strive to make intelligible the union of the given world with this unit.

These doctrines are divided into two groups and consider the unconditioned, on one side, as identical to the world or inherent in it and, on the other, as different from the world and outside of it.

The first group is that of the pantheistic doctrines, the second of the theistic doctrines. Let us examine them, and begin with the pantheistic doctrines.

I claim, first, that Pantheism is too unacceptable, too absurd, for anyone to have actually ever professed it.

I say in the narrow sense. For, pure Pantheism consists in the assurance that all the diverse and multiple objects we see in the world, precisely form in their plurality, in their diversity, a single object that is justly the unconditioned. According to pure Pantheism, in the formula,

ἐν καὶ πᾶν

[Gr. Unity of the Whole] the multiple world in its essence must be the unconditioned and *vice versa*.

We have already proved in Book Two of Part One that an unconditioned unity or union of the diverse should be immediate and unchanging. For, if the diverse were one in

-294- its essence, it could in no way be divided, its composition could not change. If the diverse in itself were one, its unity would be given immediately and also knowable immediately in its diversity, in its plurality and could not be distinguished from it. But, this hypothesis is

not only logically contradictory and inconceivable, but irreconcilable with the facts, as well. For, we see that nothing is given us immediately, if not a plurality of phenomena whose connection can never be revealed in their way of being as perceived, but only be inferred from the order of their simultaneity or their succession. The unity of the diverse is, therefore, somewhere else than in its very diversity.

Hence, what the Pantheists understand by their Absolute or God is never a unit that is truly identical in reality with the diverse world of known objects; rather what they understand by it is simply the immanent connection concluded from things, the general element of nature that they represent in a way, it is true, very confused, as a real object that would be the support of the multiple world. Pantheism is, in fact, the confusion of the unconditioned with the general, a confusion to which Plato had already paved the way by his theory of Ideas. But, nothing can be more false and more absurd than this confusion. If there is indeed a concept diametrically opposed to that of the unconditioned, it is precisely that of the general; because, it is precisely that of the mutual relationship of the diverse. Schopenhauer is thus right to say: "The progress of Theism to Pantheism is the passage of that which is not proved and that which is difficult to conceive to what is perfectly absurd" (*Par. & Parai.*, 1851, II., p. 85), with the *proviso* that Schopenhauer himself taught Pantheism under another name. His "will" as a "thing in itself" is precisely the general connection of things, conceived by analogy to the human will and at the same time elevated

-295- to the height of the unconditioned. It seems, indeed, that he who takes the immanent connection of things and their natural order for their real unconditioned support, commits but a simple error, while the one who calls *God* this natural order commits a double error, because in the consciousness of every man, in this name, God, is more or less linked the idea of *good* and unconditioned *perfection*, and the natural order of things is nothing less than good and perfect in an unconditioned manner. But, it is the same; because, it follows from the explanations given in the preceding chapters that the concept of the unconditioned is inseparable from that of good and perfection and that, consequently, we cannot understand but God Himself when talking about the unconditioned.

When it comes to the connection of the things that form one of the principal objects of the metaphysical explanation, we clearly see the amazing and invincible tendency of the human mind to never consider a fact purely for itself and apart from all possible and impossible explanation and always consider, on the contrary, both the facts and the explanation given of these as an indivisible object. It is a kind of mental chemistry, as the English say, suggesting the most surprising reflections. We see, for example, that the internal connection of things is either totally denied - especially by some Empiricists - or taken for the very foundation of things - by Pantheists, - or finally as the effect of a real cause, external to the world - by Theists.

No one will wonder: What must we think and properly assert of the inner connection of things that is concluded by induction of the facts, themselves, before we come to explain it by whatever guesses?

The following remarks will suffice in this regard:

1. To believe in the value of induction is to believe in a real connection of things and phenomena of this world. Conditioned

-296- union of the diverse, binding of diverse according to Laws, such is the general character of the world of experience that we have previously recognized (Book Two). This connection of the phenomena, we must conceive as a real element that unites the phenomena, although we can never have an intuitive idea of it because it never shows up in our perception. So, it is absolutely impossible to think that given phenomena are bound between them but are bound by nothing.

What binds them must be something real but we must not affirm anything more than what induction based on the facts allows. So, when in the way of being as we perceive it from the phenomena themselves, we notice mutual relations clearly expressed, as they occur in the invariable succession of effect and cause, or in simultaneous groups of phenomena adapted in such a way to one another that their union in the most diverse and varied circumstances constantly appears as a body always the same and identical, - these relations, this adaptation cannot be anything other than a sign of the inner connection of the phenomena in question. To say that this link is internal, means it is beyond what is perceptible and immediately given; for, we cannot understand by "inside" of the objects something other than what is not immediately accessible to the knowing subject.

Thus it is that we know and understand the connection of phenomena, if considered as a fact simply found by induction. Induction only authorizes the hypothesis of forces acting according to the Laws that experience reveals.

We can know nothing of a force except it be something intensive and the unifying element that links given phenomena apart from each other in perception. We must recognize that in this something unknown lies the reason why some specific phenomena

-297- are linked with such specific phenomena rather than the others, why phenomena occur simultaneously or successively, following the same Laws as we know but not following other Laws. We must, therefore, attribute to this unknown a rich nature without believing ourselves allowed to form on it conjectures that have no seriousness. One should only seek to understand a surprising fact, namely the remarkable similarity, the kinship of the objective, general, order of things outside of us and of thought or reason in us. How it can be done without chimeric metaphysical assumptions, I will tell in Part Two.

2. But, what is especially important for us to see and to affirm about the inner connection of phenomena that we call force is that the force itself is an empirical object, an integral part of the world of phenomena and not a transcendental object or noumenon. As the speed (a force) is only a function of the movement, all force, all causality is a function of the becoming itself.

To put it in a general manner, the combination of the diverse is a function of the latter, it exists only with it and in it. In the order of the origin, objects are before their relation and not the reverse. To want to take the overall unifying element of nature for the unconditioned, or to want to derive from the unconditioned the diverse, given way of being of particular phenomena, is about as sensible as if one wanted to derive the existence of the citizens of a state from the constitution of this state. This is precisely what the Pantheists undertake and their doctrine rests, therefore, on a pretty miserable mistake.

I will consider for a moment the doctrine of Spinoza whose logical rigor is particularly famous. The thought of this "rigorous" Philosopher is so obscure that some

-298- take it for *acosmism* [Acosmism, in contrast to Pantheism, denies the reality of the universe, seeing it as ultimately illusory, and

only the infinite unmanifest Absolute as real,] others, on the contrary, for Atheism. We find in his works reasons for both interpretations. Regarding the relation of an unconditioned with the plurality of the known world, there are four different statements in the *Ethics*, 1. "Particular things are only the affections of God's attributes or the states where the attributes of God are revealed in a fixed and determined manner." (*Eth.* part 1, Prop. XXV, cor.) 2. The unconditioned, according to Spinoza, behaves in relation to the multiplicity of things like a definition compared to the consequences drawn from it: "Of the need of the divine nature, the infinite must follow in infinite ways, that is to say all that can be conceived by an infinite reason, etc." (Prop. XVI.)

The result, according to him, is: 3. God is the real cause of all things that can be conceived by an infinite reason. And indeed, at several times, God is, for Spinoza, the immediate cause of all. What is finite, what has a limited existence "must, he says, come from God or one of His attributes, as it seems to be produced in a way" (Prop. XXVIII). It is this "As" that is, according to Herbart the most convenient way to bring the multiplicity to unity. Finally, 4. God, according to Spinoza, is the active nature (*natura naturans*), which he defines, it is true, as "attributes of the substance which express the eternal and infinite essence, that is to say God, as it can be considered as free cause." (Prop. XXIX, sch.), and thus he wants to understand only the inner acting Principle of nature, that is to say the general connecting element that occurs in the natural order of things.

Thus, although Spinoza did not hesitate to unify, in the essence of substance, thought and extension, disparate as they are, he did not dare once regard the unconditioned as the immediate unity of things, like

-299- a real *ἐν καὶ πᾶσι*. A multiplicity of things, he says, comes from the fact that God can be conceived as affected in various ways. By what God is affected and by whom he may be regarded as engaged in the production of things is what Spinoza does not explain, naturally. These are words to replace absent concepts and hide their defect.

And, as we cannot give his doctrine a specific meaning, it was taken with so much reason for an Acosmism as for Atheism. If we look at the affirmations of Spinoza that the one only is unconditioned and possesses the fullness of reality, we must take the multiple things of the world for pure appearances that have in them an element of falsity

and negation that distinguish them from the real being and prevents us from taking them for true relations or determinations of the being: one goes back, thus, to the Eleatic doctrine, to Acosmism, which is quite different from Pantheism. But, this was not his thought at all.

If we adopt, on the contrary, his other developments, it is clear that he rather takes worldly things for real and that he sees in God the binding Principle of things, their natural order, and that is true Atheism, because the active Principle of nature is a part of nature.

To say that extension is an attribute of the substance is already to deny the unity of the substance. For, what is extended is divisible, consists of things separable from one another which can exist in isolation. If the extension actually exists, there is a plurality of substances (of bodies), which have, in their concept, no mutual connection and cannot be taken for the modes of a single substance, only by an entirely confused thought. If, on the contrary, the extension does not exist in reality, but only in the thought, it can no more be taken for an attribute of the true being of the substance.

I know only one form of Pantheism which, if it does not offer an intelligible sense, enables us, however, to perceive

-300- at least an intelligible intention of the thought, by which we know, at least, that what people want to say is the assumption that the multiple things of the world, primitively, in their former state, had formed a unit and came from it by a real division of this unit as this multiple existence of today. Then, we imagine a remnant of the primitive unity, which, among all these separate elements, is at least of the same stuff and is, somehow, the representation of this unit and as the central link of these scattered elements. This is roughly the doctrine of emanation. There is also a decrease in the perfection of the elements by reason of their distance relative to the center point. We are accustomed, in fact, to this idea that what moves away in space from a center point is always weaker or rarer because of the distance and, for Pantheists, perfection is none other than the quantum of reality, the excess thereof. It goes without saying that the thought of dividing a real unit is meaningless (1). For, we cannot understand by unity but one of two things, either that which cannot be divided, and then it is a real unity, or a combination of the diverse, but which cannot precede the diverse, since it is a simple relation of it.

It seems to me unnecessary, after what has been said above, to refute Pantheism any further. We have known for a long time that it cannot explain the plurality of things or justify its hypotheses. I just want to point out a fact that is inconsistent with any kind of Pantheism. It is the presence of falsity in the world. Why this distinction between subject and object of knowledge? Why what is here, in objects, does redouble again in the ideas that

(1) Besides the fact that this division of the primitive unit should be seen as a fact without cause, that is to say, would be unintelligible from this point of view.

-301- we have of them? And why do empirical objects appear to the subject as a world of substances, whereas there is in reality only one substance? No Pantheism has ever endeavored to answer these questions. Evil is also inexplicable to Pantheism because we cannot conceive it as belonging to the eternal order and as based in the true, unconditioned, essence of things.

Of these two ways indicated above and the only conceivable to explain what is given, Pantheism can legitimately apply neither one nor the other. For, the reasoning leading to a cause or a reason of the world, even if it were true, would lead to a distinction between reason and the given reality, that is to say an explanation of the world not pantheistic but theistic. And, the consciousness that reality in itself, in its true, unconditioned essence, is not as we know it, implies that the known world contains elements that are foreign to this unconditioned and which can neither be identified to or be derived from it. If, however, the unconditioned were identical to the world, what would the unnecessary hypothesis of this unconditioned mean? For, the world would precisely be unconditioned and experience would be a Metaphysics. If, by the world is understood the bodies, we have, then, the materialist transformation of experience in a Metaphysics. If, on the contrary, we understand by it the given stuff of the reality that is subject to constant change, then we have the Heraclitan and Hegelian transformation. The obvious inconsistency of the two doctrines consists in that neither the one nor the other is content with the experience as it is: Materialists forge the idea of a world of atoms that we cannot perceive and Hegel dreams of an alleged "idea" which continues in the world the course of its metamorphoses. If we take the world itself as the unconditioned, these two doctrines have no reason to be.

-302- Pantheism was simply the fantasy of spirits devoid of criticism, who, driven by the need for a true unit of human thought, sought to satisfy themselves by postulating as already acquired and found what they were to achieve. However, Kant himself said that it was desirable to deduce everything from a single Principle (*Crit., of Judg.*, p. 25-26). But, the uncritical thought can realize all its desires by this simple trick of imagining that it has already realized them, anyhow. One essential point is lacking, though, in the reasoning of the advocates of Pantheism, namely to understand that the empirical nature of things is fundamentally abnormal and is conditioned by a deception. But, he who ignores this fact, he who takes as true, as Naturalists and Pantheists do, precisely the opposite of this, is still no more than a child in matters of Philosophy.



Chapter 5

Theism

Much more widespread than Pantheism and of a less obvious falsity is the theistic doctrine, according to which the world, or at least the becoming and its Laws, the apparent order of it, have an unconditioned cause external to the world. This doctrine usually goes that this cause, external to the world, is a being similar to man, endowed with intellect and will, and is called God. It is first necessary not to take in one block the problems and the issues, but distinguish them exactly and examine them one after the other, under penalty of lack of clarity in the examination of objects. There are, first, two important issues to resolve: 1. If the conclusion in favor

-303- of a cause external to the world is valid; 2. If what this conclusion leads to, assuming that it is valid, can be considered as unconditioned. We will look in Part Two, only, to what extent it is convenient to consider the acting Principle of nature as similar to man.

In the chapter on the relationship between the given reality and the unconditioned, I have already shown that the unconditioned cannot be conceived as a cause and as the cause of the world must be unconditioned, itself, it is impossible to conceive a first cause of the world. But, it will not be superfluous to consider this issue in itself, apart from anything else. Let us, therefore, seek the answer to the preceding questions.

The first involves three different problems: 1. Has the fabric of the world been created, itself, in other words, does it have a cause or is it just a becoming, in itself? And, since for the explanation of what happens there are two things to consider, its nature and the fact of its existence, we still have to solve the following two questions: 2. Can we admit, conceive a first cause of existence, of the becoming in general? and 3. Should the nature of what happens, that is to say its given pattern, be ascribed to a first cause external to the world?

By the expression of stuff of the world, two things can be understood, either what we call matter or the given, empirical objects, that is to say the knowing subjects and their sensations.

If matter is, itself, something real, there can be no question, naturally, of a Creator, of a Producer.

For, in matter, itself, we conceive the unconditioned in space whose essence and existence do not come in time and which cannot be thought of, therefore, as caused or pro-

-304- duced in any other way. But, if matter is not, in reality, as we conceive it, it is nothing else, as we have already shown, than a way of thinking on the subject.

To look for the origin of this way of thinking is obviously a matter of Psychology which is part the theory of knowledge. It naturally cannot be a question of creating a world that does not exist.

But, if we speak of a creation of the given stuff of experience, we cannot understand by this but a creation *ex nihilo*.

Now, such an affirmation contains a double contradiction. The thought of a production *ex nihilo* is, as we have shown, impossible and empty. This is exactly the equivalent of a becoming without cause. Creation *ex nihilo* is an obvious *contradictio in adjecto*. What comes of nothing can absolutely have no cause for, this cause should be conceived in a certain relationship with this nothing, which would make this nothing a something. It would be a conditioned unconditioned origin, which makes no sense. It is useless to insist on this hypothesis. It can, at the most, be a question of an unconditioned first cause of changes, not of the stuff, and this is precisely the subject of our second question.

Are we to ask ourselves whether we can conceive an unconditioned first cause of changes? It goes without saying that we do not mean by this an unconditioned cause of a change, but a really existing object. Because, we have already agreed that the changes themselves are not unconditioned and we are looking for their cause. By unconditioned causality of an object, we can understand two things, that it causes changes in an unconditioned way, either 1. In itself, or 2. In other objects and, in the words of Kant, "absolutely begins a series of becoming."

But, if we say that an object can produce in itself changes without another cause, we just mean by it

-305- that, in this object, changes without cause, that is to say, unconditioned, may occur. For, it is absolutely impossible to introduce in the relation of a being with itself the distinction of condition and conditioned and so give it a conditioned existence. (1) But, if there

could be anywhere changes without cause, we would not have to worry about a primary cause of the changes.

If it be said, on the contrary, that an object can produce, in an unconditioned way, changes in other objects, we cannot give this affirmation any sense, either relative to the mover object, or relative to its effects; for, there is obviously no other sign of the dependence of a movement relative to its cause than to follow it in an immutable way. If we conceive, under the name of cause, an object in which no change is produced, it is absolutely impossible to imagine the sequence of actions in relation to the essence of this cause. An unchanging antecedent would obviously have but an immutable consequent; as this alone would necessarily involve the dependence of the second from the first. If we attribute to an immutable cause the changing effects, we contradict ourselves because we precisely deny this state of the effect by which alone it proves its dependence on a cause.

Any hypothesis of an unconditioned cause is equivalent to that of unconditioned production, of a first beginning and that is precisely the negation of causality; for, if in a state of rest, a change absolutely occurs suddenly, it occurs without an antecedent, in an unconditioned way. But, if changes could occur unconditioned, without a cause, without an antecedent, we would have no

(1) An object cannot be cause and effect at once, or it would be neither the one nor the other, because the causal relation obviously implies a distinction between these two terms.

-306- need to worry about causes, nor about a first cause of the changes, either. Such changes would themselves be first causes and could occur at any time. This shows that all hypothesis of a First Cause, an unconditioned causality, contradicts the very Principle of causality which, alone, justifies, however, any research on causes.

If, now, the fact of the becoming or change, itself, can have no external unconditioned cause, external to the world, the nature of the world in which phenomena occur, that is to say the regularity of these phenomena, cannot have more. If the series of changes may have no antecedent outside the world, their Laws cannot have an antecedent, either. The Laws are the ways in which the connection of phenomena in their existence and relations manifest, as we perceive them. What

reason and what right do we have to assume that this connection of phenomena, itself, has a cause external to the world? It is, itself, the constant condition based on the nature of things, under which occurs, in reality, a regular apparition of causes and effects, antecedents and consequents.

To affirm that this condition has itself a cause, an unchanging antecedent obviously has no sense: because, it is assumed that precisely what constitutes the foundation of all causality is itself the product of a similar relation .

Theistic theories, on this point, are, as we know, different. Some disciples of Descartes and Berkeley with them, believed that God himself created an effect for each cause one after another and finally played the role that is attributed, on the other hand, to the natural sequence of things.

Others, on the contrary, felt that God had beforehand arranged things so that they, without any further intervention, ordered themselves following the immanent Laws of their relation. This is what we can call with Leibnitz a predetermined harmony.

-307- It is impossible to me to conceive that one can understand things differently. I think any theistic theory can be reduced to one of these two, if it has any intelligible meaning but neither the one nor the other is founded in reason; for, if God should do precisely what the natural connection of things does and if this relation is demonstrated by the same arguments, then it is confused with it. The affirmation of its externality from the world is a free affirmation, in no way justified by the reasoning on the premises. (1)

If, however, God does not act himself as an intermediary between phenomena, if we must admit a natural connection of things other than him, the idea that God created this connection has even less sense because all reasoning on the causes precisely presupposes this connection of the diverse in the succession.

It is clear, moreover, that were it possible to conclude from a single cause to the order and regularity of the world, this conclusion would not exceed experience and could not reach the unconditioned. All that is known by reasoning about the causes is already *eo ipso*, an empirical object. We must prove it in a few words.

The Principle of causality can (there is no alternative) either be the result of an induction from the simple experience or be *a priori* certain. It is not possible to make another hypothesis. In none of these two cases does it lead to the unconditioned.

Does the Principle of causality come from experience - of course, it cannot exceed it; the empirical progress from an object to another object, the induction is specifically a reasoning from similar cases to similar cases. It is materially impossible,

(1) This confusion is clearly expressed by Brown (*Cause and effect*, p. 378): "Whoever performs one single action of the common life in reliance on the similitude of the future with the past has already confessed the existence of God," Yes, if it is accepted as Brown does, p. 405, that God is one of the powers of nature, but not if we do not admit it.

-308- by way of induction to conclude a cause that would be different in its essence from what is given. All that allows the induction is a simple development of experience. Its value is based precisely on the assumption of a connection between phenomena that makes it an element of the experimental reality.

But, if the Principle of causality is certain *a priori*, it is valid without exception, and the consequence already proved follows that all causes are linked with their effects by general and invariable Laws. For, if these primitive causal Laws, not derived in the immediate relationship between cause and effect, a change occurred, it would happen without a cause, which contradicts the Principle of causality. Therefore, assuming an *a priori* value of the causal concept, all cases without exception have their place in the context of the experience, are empirical objects or physical antecedents of changes, therefore conditioned like them.

We must remember that any relation, any link is necessarily mutual. A cannot be related to B without B being simultaneously linked to A. It is the same as cause and effect. But, as the cause precedes effect in succession, already exists before the production of it, it seems to have, with regard to it, some independence. But, we soon get used to the idea of an absolute cause.

Yet, it contradicts the very Principle of causality. A cause is independent, it is true, of its effects as to its existence; but, its essence necessarily relates to all effects it can produce in different

circumstances. Once these circumstances arise, immediately does the determined effect occur, and such an effect and not another. The reason is as much in the nature of the cause as in the various concurrent circumstances.

Anyway, we arrive, therefore, at the result that the

-309- conclusion to a cause of the order of external things of the world is neither valid nor legitimate and that even if it were valid, this conclusion does not relate to the unconditioned but on an empirical, conditioned, object. "If the empirically valid Law of causality, Kant says (*Crit. of Pure R.*, p. 506-7), reached the primary cause, it would enter in the chain of the objects of experience; but, it would be conditioned, as all phenomena." Only that Kant is unforgivable to have conceived the super sensible, the thing in itself or noumenon, as the cause of the phenomena, despite the affirmation that we have just recalled and although, according to his theory, the Principle of causality can be of no objective value. (1)

If, then, it is impossible to conclude to the unconditioned as the cause, because we can never conceive it as such, the impossibility will be much greater still to determine the nature of the cause by relying on this conclusion.

A cause that we cannot know itself, either can be conceived by the analogy of its effects or by that of other causes whose effects resemble it. But, to pretend to know the unconditioned by analogy with empirical objects is obviously a quixotic endeavor. For the reason to admit an unconditioned distinct of the world already implies the fact that the objects of experience are all unconditioned. To delete this difference is to remove any reason to seek an unconditioned outside of the world. It is surprising, indeed, that one could imagine to solve the problem that the world presents by posing, again, the problem in the supposed solution given.

(1) Again in *Crit. of Judgment*. p. 35, Kant affirms that the super sensible acts in the world, "although the word *cause*, used in speaking of the super sensible, only indicates the reason for determining the causality of the things of nature with respect to an object, according to its own actual Laws."

-310- It is a fact that man has always conceived and still conceives the supposed cause of the world after those that experience offers. We conceive it, for example, as similar to human nature, probably because

man cannot imagine anything greater than himself, and for other reasons also that I will show in Part Two. Good people favor so far this empiricism that they believe to see and touch their gods, lords and masters of this world, and believe them corporal and gifted with sense like us. A more advanced reflection purifies the idea of God. We no longer attribute him a corporeal nature, but only the psychic nature of man, with all conceivable perfection of this nature carried to the highest degree. No need to repeat that an essence so conceived is not the unconditioned (1).

I think I have shown in the above that any attempt to deduce the given from the unconditioned is vain, be that we conceive it as a pantheistic unconditioned inherent to the given world, itself, or immanent and theistic, external to the world.

The unconditioned cannot be conceived as a condition. Upon this rests the antinomy that we will expose.

(1) See what was said in the chapter entitled "The unconditioned is one. "

Chapter 6

The fundamental antinomy

In closing this Part One, I shall summarize the general findings of the research done so far, exposing as clearly as possible, in particular, the nature of the conditioned, its relation to the unconditioned and the fundamental antinomy which is found in its essence, finally all clearly presented.

-311- May I remind the reader that for any statement made, here, I gave a rigorous proof in Part One, or shall in Part Two.

Conditioned is what depends on conditions. How is it that instead of satisfying ourselves in discovering the conditions for each conditioned in particular, that is to say to the empirical explanation, we strive to exceed in our consciousness the world of the conditioned?

That the conditioned presupposes a condition is, says Kant, an analytical Principle; but, should we seek the unconditioned beyond the conditioned, this is done according to a synthetic *a priori* Principle, of which the simple understanding knows nothing and for which we need a special power called reason. (*Crit, Pure R.*, p. 300) But, the second is an immediate consequence of the first. For, if all the conditions are in turn conditioned, probably every conditioned taken apart has its condition, but the conditioned in general, as such, does not. If the conditioned in general must have a condition, the latter must necessarily be unconditioned.

We are so convinced of the truth of these assertions that from all time we have tried to derive the conditioned from the unconditioned. But, I have already amply demonstrated that this derivation is impossible, that the unconditioned is not a sufficient cause of the conditioned. And the fundamental antinomy, the contradiction that presents the essence of the conditioned consists precisely in that the unconditioned cannot be conceived as a condition or cause, nor any condition or cause as unconditioned, that the conditioned at the same time needs and is not susceptible of an explanation, of a justification. We will show the meaning and the reason for this contradiction.

The Basic Law, the *Norm* of our thought is the concept that we have of the unconditioned, of the substance. This is the concept of an object that has a really true essence

-312- and is identical to itself, that is to say, does not include at all the union of the diverse.

The conditioned does not correspond to this *Norm*; it has an abnormal nature because that of which the essence is produced by conditions, specifically has a borrowed essence that is not really proper to it. So, I proved above (Book Two, chapters 3 and 4.) that the objects in this world of conditioned existence do not have a true being, do not correspond to the Law of our thought. The things of this world appear, it is true, to have a true being; we recognize substances and objects in experience that do answer to the Law; but, it is a pure appearance. This was already understood by the developments of Part One; we shall find decisive proof of it in Part Two.

The definition of the abnormal is: is abnormal that which does not have a true being.

But, the abnormality also manifests by other symptoms.

One of these symptoms, one of these proofs is that the abnormal thing negates itself. We found that the abnormal negates itself in different ways. Thus, the instability and variability of empirical things is primarily a sign of their abnormality. That something happens or changes is, in fact, proof that it is not identical and true to itself, it is internally unstable, that it has no really true being, a true self.

One thing denies itself, secondly, when it deceives on its nature and appears for what it is not in reality. Our world is entirely based on a deception, and shows thereby that it is abnormal.

Thirdly, an object is revealed as abnormal when it depends on conditions; because, what is produced by conditions does not have a true being. The really true and normal being of things is unconditioned.

-313- All conditioned and changing beings are composed and all composition excludes any true unity, does not have a really individual essence. The unconditioned being of normal things is foreign to any of union of the diverse.

Finally, the anomaly manifests itself immediately in the feelings of pain and evil, in which the tendency to self-destruction shows.

We thus see clearly what the nature of the relation between the conditioned and unconditioned and with what foundation we could conclude to the latter from the former.

The things of experience do not have a really true being, - the really true being of things is, therefore, outside of experience. The unconditioned, the metaphysical, which is beyond experience is, thus, the *Norm* (the normal being) of things like the concept of the unconditioned is the *Norm* of our thought.

The world of experience, the conditioned, cannot be thought without the unconditioned, that is to say that things cannot be thought without their true being.

But, the things of this world have a nature that is given to us in experience. This nature is abnormal, denies itself, condemns itself. It is, therefore, foreign to the normal, unconditioned being of things. The world of experience is an expression of the unconditioned in a form that is foreign to it as such.

The second definition of the abnormal is thus: is abnormal that which contains elements that do not belong to the very own, normal, nature of things.

By these definitions, the meaning and reason of the fundamental contradiction is clarified which lies in the essence of the conditioned, the abnormal.

The elements of the given reality that are foreign to the normal course of things cannot obviously come from this being.

As foreign, they should have added themselves to it, but as

-314- outside the essence of things in themselves there is nothing from which anything can derive or come from, it follows that it is impossible to conceive what the foundation of these foreign and abnormal elements can be. So, here we touch as with the finger the antinomy which is found in the essence of the conditioned, that is to say the abnormal. The thesis and antithesis have there their common foundation. If the empirical, conditioned, nature of things is foreign to their unconditioned, normal, being it must have a foreign condition. But if, precisely, it is foreign to the true being of things in itself, it cannot have a condition foreign or different, because, apart from the essence of things, there is nothing that can serve as condition. The same reason, then, that makes an explanation of the

world necessary proves that this explanation is impossible. If, in the given reality there were no elements foreign to the normal nature of things, there would be no reason to ask what conditions them and try to explain this reality. What indeed belongs to the true, normal, nature of things is precisely, for that, unconditioned, obvious and needs no explanation, no foundation. But, what does not belong to the essence of things cannot be derived, cannot be explained in any way. The existence of the abnormal is absolutely incomprehensible.

We, thus, see how the method and results differ, throughout, when we do an exact search of things instead of carelessly continuing to look for the explanation. So far, seduced by the apparent evidence of things (see p. 311), we have always seen in the unconditioned the sufficient reason of the conditioned and conceived the unconditioned either as the substance or as the cause of things. And even the impotence of all attempts at a metaphysical explanation has not opened the eyes of anyone. We do not see that we are following a bad road that can only lead to bad results. Kant, alone, in his *Antinomies* has

-315- tried to show the impossibility of deducing the conditioned from the unconditioned. But, he was himself so far from perfectly understanding things that, despite his own theory and in contradiction to it, he saw in the unconditioned, in things in themselves, the cause of phenomena. (1)

If, on the contrary, we understand that the things of this world are conditioned only because they do not have a true being, that the world of the conditioned has an abnormal nature, it is at once clear that the difference between the conditioned and the unconditioned, between the thing in itself and the phenomenon, is the difference between the *Norm* and the abnormal and implies an essential, radical, opposition, which renders inconceivable all derivation of the conditioned from the unconditioned.

So, we see why all metaphysical explanations of the world are necessarily false. In fact, if we do not recognize the contradiction that resides in the essence of the conditioned, *i.e.*, the abnormal, if we want to derive it from the unconditioned, we necessarily fall into contradictions. To explain the abnormal, in fact, is to prove that it is normal and that implies contradiction. To deduce from the essence of things of the world elements that are foreign to this essence, is to prove they are not foreign to it, that they belong to it, and that implies contradiction.

We have found four symptoms of abnormality, four essential features of the empirical world, which are foreign to the essence of things in themselves: 1. The instability and change, in a word this manner of being called becoming

(1) Some of the Kantian antinomies do not relate at all to the real contradiction which is found in the conditioned and Kant, furthermore, had fallen into a singular mistake by attributing the contradictions to pure reason itself, while the antinomy has its basis in the fact that the empirical nature of things does not abide by the *Norm* of reason. Besides, he had no idea of the fundamental Law, the *Norm* of thought.

-316- by opposition to being; 2. The fact of being conditioned; 3. The deception on which the world of experience entirely rests, and 4. The immediate feeling of the abnormality and imperfection, pain and evil. It is easy to see that it is impossible to explain the becoming, the fact of being conditioned, the deception and evil, that any attempt to give such an explanation leads to logical contradictions.

As to what concerns the becoming (instability and change), the antinomy it presents and the impossibility to give a definitive explanation of it manifest in that the series of causes of the becoming continues to infinity. Kant has showed, in the antithesis, the impossibility to find a beginning to support the becoming and, in the thesis, on the contrary, he has put the belief in a definitive beginning, a primary cause of becoming, and he sought to support one or the other by various reasons. Only, both mutually imply each other. For, the pretension of an explanation in general is necessarily the pretension, at the same time, of a definitive explanation. The paradox precisely consists in this that even the Principle of causality which means that any change has a cause, also wants all changes to be explained and, at the same time, precludes any hypothesis of a first cause, a definitive explanation of changes, a derivation of the unconditioned. Any change must have a cause but, precisely for this reason, the first change and, therefore, an unconditioned first cause of the changes, is inconceivable. Everything that happens has its particular condition. But, the becoming, in general, as such, the fact that something happens, that changes occur, can have neither reason nor cause. The assumption of an unconditioned first cause of the becoming contradicts the Principle of causality which is, however, the only reason to suppose causes in general. The antinomy that contains the essence of the becoming has

-317- thus the same foundation as the Principle of causality itself, namely the certainty that all becoming and any change are foreign to the unconditioned, normal, essence of things.

As, since Kant, all those who are versed in Philosophy know the contradiction resulting from the Principle of causality, they can clearly see the nature and purpose of the fundamental antinomy that enters the world of experience in general. For, the latter is entirely contained in the former. If it is impossible to explain the becoming, the whole world with all its properties is also inexplicable. Because, everything in this world is pure becoming.

It, therefore, follows that all the other anomalous features of the world, the being conditioned, the illusion and the evil are absolutely inexplicable.

The fact of being conditioned, in the particular, is in the general the conformity with the Laws; that objects and phenomena depend on conditions precisely implies their connection according to general Laws. Now, I have proved in the previous chapter that the pretension to find an explanation or a cause of the regularity of things is meaningless because any causal relationship, all relation of Principle to consequence is precisely possible only because of this regularity, and no reasoning can, therefore, achieve a foundation or a cause beyond experience.

But, the regularity of the world is also conditioned by a systematically organized deception and this necessary, natural deception cannot be explained, this goes without saying. It is absolutely inconceivable that it be within the really true being of things to deceive with regard to their nature; that out of the true nature of being of things can issue the appearance of that which they are not in reality. Everyone immediately understands that, between truth and

-318- falsity, there is a radical opposition that precludes the latter to be derived from the former.

Likewise, it is obvious that it is impossible to conceive a first cause of evil and imperfection. For thousands of years, already, people have exhausted themselves in explaining the existence of evil and imperfection, always in vain.

For,, in fact, evil and imperfection are in themselves proof that they do not belong to the primitive being of things, that they are an anomaly,

that they are something that should not be, which denies and condemns itself. The unconditioned alone (see p. 290 ff.) can be seen as perfect and everyone immediately conceives that, between perfection and imperfection, between good and evil, there is a radical opposition that absolutely prevents that the latter be derived from the former.

So, this is the decisive point on which everything depends. All theories about the world, life, religion, Philosophy and morality are different depending on whether one sees in the unconditioned the *Norm* or the cause of things. All doctrines about the world, until now, naturalistic, theistic or pantheistic, proceed from the opinion that the unconditioned is a sufficient reason for the conditioned. This false theory formed before any research has necessarily baffled those who adopted it because we thus make it impossible to see the facts. We follow a need for explanation of which we are not always conscious and which leads us to see things in a blurred way as the explanation requires. Hence, this absolute sterility in the field of Philosophy. So far, no doctrine agrees with the facts, none benefits Science (1). The main purpose of my writings is to prove

(1) The only real benefit is that which the Sensationalists have made by the discovery of the Laws of association of ideas and inner states. But, the true Sensationalists, those who think, who deny the existence of the bodies, are also those who are most free from this false Principle.

-319- that all things, of the physical as well as of the intellectual and moral orders, have, as *Norm* and not as sufficient reason, the unconditioned, that the world of experience contains elements that are foreign to the unconditioned and are with it in radical contradiction.

Among the facts, there is one, however, that has, on these issues, a critical importance: it is the fact that our world is conditioned by a systematically organized deception. It is only when we have penetrated this deception that makes us see in ephemeral phenomena a world of substances, of lasting things that comply with the *Norm*, that we shall really understand that empirical things do not actually correspond to the *Norm* of our thought, do not have a really true existence, that their nature is abnormal. So, if we can prove in a perfectly certain way, without the trace of a doubt, in a manner that excludes any other way of thinking, that the world is conditioned by a systematically organized deception, all people will have to recognize that our world is abnormal and inexplicable, that we must see in the

unconditioned, not a Principle of explanation, but the *Norm* (the normal and true essence) of things. We must, therefore, attribute great importance to this proof.

We shall cover it in Part Two, in the chapter on the nature and unity of the self, and the four chapters dealing with bodies and movement, in addition to the 4th and 5th chapters of the Book One of this work. This proof has this advantage that it is not based on abstract considerations, but on facts that everyone can observe when they apply to see things with a disinterested eye. It is up to each individual to decide. One who has not yet penetrated the natural deception does not yet see; his mind is not yet awake.



PART TWO

THE WORLD OF

EXPERIENCE



BOOK ONE

THE OUTSIDE WORLD

Chapter 1

The idea of time

Of the general idea of time, there is almost nothing positive to say except that it is a pure abstraction, an abstract idea of given successions empirically known. This chapter will be devoted rather to the examination of the theories related to time than to an explanation of the idea of time.

The ideas of time and space occupy among other ideas such a special place that they naturally overlap in our consciousness. Hence, Philosophers have always been willing to consider as essentially similar ideas those of time and space and Kant has brought this assimilation to the extreme. Both ideas, it is true, have something in common and some analogy. Space is the order of that which is juxtaposed and Time the order of the successive. However different they may be from one another, the juxtaposed and the successive, though, rely on a common concept, that of a compound of parts external to one another and in this particular way to which is given the name of extension.

-324- Here is what this way of being is special for. In space and in time, there are real points (1) of such a nature that the existence of one does not imply that of the other and is rather independent. In succession, it is easy to see it. For, in a successive series, there is in each moment a point, while the others have already ceased or have not yet begun to be. According to the Law of causality, it is true, any phenomenon, any change essentially and necessarily depends on those that preceded it. But, this does not affect their independence as one simply considers their way to be external to each other. For, in this view, the existence of a real point of time not only does not imply that other preceding points occurred earlier, but excludes them, on the contrary. Previous points must obviously have already passed, as soon as the point in question is present. The externality of points in space is exactly similar in the sense that the existence of one does not imply that of the other; because, in space, we cannot conceive anything other than substances, that is to say things that exist independently of each other.

Another analogy between space and time is that the outer points to each other are both in space and in time, related to each other by continuity. Following this analogy, the given succession of sensations provide a ready material for the formation of the idea of extended space, which is not given.

But, thus far goes the similarity and analogy between space and time. These two ideas are to

(1) By real points, I mean real objects (in space) and real events (in time) if we disregard their extent - spatial for the former, temporal for the latter. I will not affirm that what is true of these real points must be worth exactly and necessarily the same as purely abstract, mathematical points, in space and in time.

-325- all extent different. The reason for their difference lies precisely in the fact that the successions are really and immediately given, while things in space are given us neither immediately nor anyhow; their idea is formed by ourselves. Thereupon, are founded the two key differences between the ideas of time and space: first the reality of successions cannot be questioned or denied as that of things in space; secondly, there is no reason to consider the idea of time as an *a priori* intuition, as happens for the idea of space.

Kant, who assimilates in everything the idea of time and that of space, therefore, advanced two fundamental errors: 1. The affirmation of the ideality of time, that is to say the affirmation that successions do not exist in reality, but only in our idea; 2. The affirmation of the apriority of time as a form of inherent intuition about itself. I have already proved in Part One (p. 163, ff.) that the doctrine of Kant is unsustainable. Here, I especially want to show that the apriority of the theory of the idea of time has no value.

It is remarkable that in the so-called "metaphysical Exposition" of the concepts of space and of time, Kant employs almost *verbatim* the same arguments, without considering that what is valid for the concept of space is absolutely not valid for the concept of time. He first said: "Time is not an empirical concept provided by experience. For simultaneity or succession would not fall under the same observation, if the representation of time served them of an *a priori* foundation." (*Crit., of Pure R.*, p. 81)

This is a remarkable statement. Kant, himself, repeats that a change, a succession – it is the same thing - cannot be known but by

experience. What then does the affirmation mean that succession cannot be known without

-326- an *a priori* intuition of time? If successions were not included in the given content of perception - as is the case for the spatial extent - we would have the right to say that the idea of succession is, it is true, "inherent to experience," but "did not originate in experience."

But, as soon as perception gives us its content as successive, the alleged *a priori* intuition of succession cannot add it to the data and appears as an unnecessary hypothesis. I have shown in Part One that Kant had not shown himself consequent in the theory of his "Transcendental Aesthetic" about time. His own view was that changes and successions could be known only by comparison with something immutable, identical to itself and, therefore, could not be immediately perceived by intuition, but only concluded. It would, indeed, be unreasonable to believe that one could perceive the past, that is to say non-being as such, or having an intuition of it. What is, generally, present in consciousness, is *ipso facto* real. The idea of a change or a succession cannot happen but because we do not confuse the perception of the present state of the object changed and the simple memory of its past state, that is to say we cannot attribute the two states to the object from the same point of view; because, that would be contrary to the Principle of contradiction which expresses, as we have already shown, a primitive Law of thought. But, if the two states, the perceived and the remembered, cannot belong to the object, one of them must not be and the remembered condition will be known as not being, because the perception has a force of affirmation greater than the mere memory. Hence, the last being will be rejected into the past. So, there can obviously be no question of an immediate intuition of time or successions.

The misunderstanding of Kant on this point is also very visible. he

-327- says that "if the idea of time were not an *a priori* intuition (inner), any concept, whatever it were, could not make the possibility of change intelligible, that is to say of a relation of contradictory predicates in one single object (such as for one single object to be and not be in a place)." (p. 83) No concept can make it intelligible but experience which presents us the changes and which Kant ignores. It is impossible to see how an *a priori* intuition could contribute to the knowledge of successions.

The second argument of Kant for the apriority of the time idea is conceived as follows:

"Time is a necessary representation that underlies all intuitions. One cannot remove time in relation to phenomena in general, although one can very well abstract the phenomena in time. Time is, therefore, given *a priori*" (p. 81).

This is again a baseless assertion and the error on which it rests must be carefully reviewed because it is precisely here that the fundamental difference between the idea of space and that of time most clearly shows.

Time is not, as space, a necessary idea from which we can abstract any given content. One can indeed conceive an empty space but not an empty time, that is to say, a time in which nothing happens, in which there are no events following each other. An empty time cannot be measured by anything, nor, consequently, be known as dimension, nor, therefore, be thought of. On the contrary, one can measure an empty space, especially by the time a body takes to reach another body through the empty space. The duration of this movement, compared with other simultaneous successions can be measured, because any measurement is the comparison of a quantum

-328- with another. If there were only two bodies, the duration of the movement towards each other probably could not communicate an absolute measure of their distance because a movement in an equal period can have different speeds and thus measure different spaces; but, in any case, this movement allows us to see that there is between the two bodies an empty space. It is quite different with time. An empty time cannot be measured by real succession data; as a time in which occur real successions is not an empty time and outside successions, we do not see what could be used to measure time. The time thus vanishes altogether if we exclude it from any real succession. To clarify this point, let us take a concrete example, a very tired man, who slept without dreams between ten at night to six in the morning, often believes he has slept just for a moment. The time between when he fell asleep and woke up did not exist for him. Suppose now that no change occurred in the universe during this time, everything is found at six o'clock in the morning in the same condition as the day before at ten o'clock (1), and, now, tell us how and by what means the sleeper waking up will distinguish this time range from that of an instant. We could not find any difference. A time in

which nothing happens is not a time. If we want to conceive an empty time, we actually represent a real, regular, succession, a regular motion in a straight line.

Also, if time were a common environment for real successions, as space is the common environment and the common reservoir of bodies, it could not accommodate with the speed diversity of real successions, because time

(1) In this supposition, expressions six in the morning and ten at night are meaningless because they relate to real change, and it is impossible to determine an empty time.

-329- should have itself its proper speed and could not contain different speeds. Herbart showed the contradiction that would result (*Psych. as Sc.*, p. 358, and *Introd. to Phil.*, p. 168). For example, with the rotation of the earth, a point moves at the equator because of speed a million times greater than a point at the pole, and these two points fulfill both their rotational movement in the same time they employ continuously and regularly. The point which travels slowly does not stop any more than the one traveling fast. How, then, if the time were not a pure abstraction, but something distinct from real successions, how that time could have been regularly filled and from the same point of view, by two different quanta of succession? It would obviously be impossible.

Hence, from the fact that time is nothing, apart from the real successions, it follows that the totality of the real successions is necessarily continuous, there cannot be any interruption in the course of the becoming and, hence, the space of time in which nothing happens = 0. Special successions might, indeed, be discontinuous, such as the succession of sounds in a keyboard and the sparks of an electric machine; but these discreet successions themselves must be based on conditions associated with a continuous in time. This consequent also follows from the Law of causality that requires a connection of the consequent with the antecedent and allows no interruption of continuity in their succession, such as an empty time would produce.

The arguments Kant proposes yet in his "metaphysical Exposition" in favor of the apriority of the idea of time have so little importance, they

do not need to be replicated or refuted at length. So, this idea, he said, should be *a priori* because, otherwise, no Principle, no

-330- apodictic axiom would be possible; for example, that time has only one dimension and different times are not simultaneous but successive. It is clear that one speaks of a time dimension only metaphorically and because it is conceived by analogy with space. And, as to the Principle that different times or parts of time are successive, it is a tautology, because time and succession are the same. – But, it is not without interest to take a look at *Transcendental Exposition* of the concept of time in which Kant has offered to show how the so-called *a priori* intuition of time can be the basis for other synthetic *a priori* knowledge. This latest exhibition is very underdeveloped, and rightly so, for it cannot deliver what it promises. Kant first argues that without an *a priori* intuition of time the possibility of a combination of contradictorily opposite attributes in a single object (*i.e.*, the change) is inconceivable. This statement, as I have already shown, is unfounded. "Therefore, adds Kant, our concept of time explains the possibility of as much synthetic *a priori* knowledge as the general science of motion, not little fertile itself, exposes." This 'therefore' marks a leap rather too bold. Even admitting that without an *a priori* intuition of the time we would know no changes or movements, it remains, however, that we cannot explain at all by that the possibility of other synthetic *a priori* knowledge of the movement. Kant, indeed, repeatedly said, and with good reason, that a movement can be known only by experience and not *a priori*. He distinguishes very well the movement of an object in space, from the movement as a simple description of a space (p. 154). The last one alone, he says, belongs to the pure intuition and to Geometry based on it, but never the first, "because we cannot know *a priori*, but only

-331- by experience that something is moving." It is, therefore, obvious that a supposed intuition of time cannot be a source of synthetic *a priori* knowledge of the movement, as the intuition of space is the source of synthetic *a priori* knowledge in Geometry. The geometrical Laws of space are given in the idea of this space, regardless of any experience, but the mechanical Laws of motion cannot be given us independently of any experience, because a movement can only be known empirically. It follows that Kant could well give a "Transcendental Exposition of the concept of space", but not of time. I shall show later in what sense we can consider the

knowledge of the Laws of motion as based *a priori*. But this knowledge has nothing to do with a special intuition of time.

Apart from those that Kant has presented, I do not know any arguments for the *apriority* of the idea of time and I do not see any good reason we could give; for, it is certain that changes and also successions can be known without an *a priori* idea of time. By the word "time" we must, therefore, understand only a general idea abstracted from the data of successions where all differences between the successions are suppressed and which contains and expresses only the remaining common elements of these successions. But, if abstract ideas appear in concrete form to the imagination, it is because we add to them the same determinations shown by the individual objects from which they have been abstracted and best correspond to their general nature or whose ideas most readily associate to this nature in consciousness. As a result, we represent time as a regular succession when we imagine it, although time can be also known as an irregular succession. On the contrary, we cannot attribute to time any specific speed, because in given successions

-332- no speed in its essence is preferred to another so as to be considered a primitive common rule of these successions and consequently be easily transferred to the general idea of time. So, if we imagine time, we sometimes assign it such a speed, sometimes another, and this according to circumstances.

Regarding the measurement of time, it can only consist of comparisons of successions, especially comparisons of all the other successions with a regular succession taken as a rule. But, here comes the question: How can we recognize and ascertain the regularity of successions, since the various parts of a succession are not juxtaposed and we cannot perceive, as a result, its equality or inequality? If the production of regular successions were purely accidental in our experience, I do not see, in fact, how we could perceive its regularity and use it to measure time.

But, this is fortunately not the case. The revolutions of the Earth and other celestial bodies regularly occur from the beginning to the end of our experience. Always observing the repetition of the same cycle of phenomena, we are naturally led to suppose a regularity in this repetition, and if we note, moreover, that two or more such cycles always have the same relations between them, that one always contains the same number of repetitions as the other, their regularity is

taken as a fact. There is precisely such a relationship between the rotation of the earth on its axis, which is the condition of the succession of days and nights, and its movement around the sun, which brings back the seasons. It is not difficult to divide the diurnal movement of the earth in equal portions, following the division in arcs that the sun or the stars seem to cover in their daily movement [this heliocentrism, as opposed to Geocentrism remains, since the days of Copernicus, as we noted, a matter of controversy because, this world is, indeed, made of appearances.] We can as well

-333- use another movement that we have objective reasons to consider regular, for example that of a pendulum freely suspended. It is not necessary for this to resort to philosophical considerations on the concept of time. It is enough to have shown that what we call time is a mere abstraction, and that we must see in it neither anything real nor a kind of primitive and necessary idea.



Chapter 2

The idea of space

§ I. – Of the Content of the idea of space.

We rightly attach great importance to the question of the origin of the idea of space; only, there is not much chance of solving it well if one has not previously sought to determine the content of this idea. Without this, we do not even know of what we seek the origin. The second question must obviously be dealt with first.

In the previous chapter, I have already shown that the concept at the bottom of the idea of space or extension in space is basically that of mutual externality (Ger. *Aussereinander*), that is to say of externality or juxtaposition simultaneously. But, whatever manner to be out of one another has not the nature of space. Mill has precisely noticed that in our consciousness, two ideas, for example the idea of a sound and that a color can be set alongside one another without being extended, without being separated by a space. The extended juxtaposition, therefore, has a special character which must be seized and define exactly. And this issue has moreover

-334- two aspects, one psychological, the other ontological, if one may so speak; because we must ask ourselves, first, what feature we ascribe to objects that we recognize as existing in space and, secondly, by what the empirical data are distinguished, that is to say the sensations which form the idea of extension.

To the last question, Stuart Mill and Bain have made, I believe, an accurate answer. They affirm that only through movement, or better yet by the muscular sensation that accompanies the movement of our members, can a spatial extent or scope be known. Mill says about it: "a series of muscular sensations must necessarily interpose between the fact of reaching an object and that of seizing so that the simultaneity in space may be distinguishable from that simultaneity existing between a color and flavor and between flavor and odor" (*Exam.*, p. 268). Bain amply presented the same theory. He first noted that the perception of two simultaneous objects, for example, two lighted candles, does not give us the idea of their distance in the extension or their position in space. With this perception, he said, "I feel a variety of impressions of a nature partly optical, partly muscular.

But for this diversity to express to me a variety of positions in extension, it must reveal the new fact that a certain movement of my arm would bring my hand from one candle to another, or that some other movement of my body would change in a determined manner the phenomenon that I already see. As long as we know nothing of the possibility of body movements, we have no idea of the extension.

We believe we have a concept (a notion) of the extension only when we clearly know this possibility. But, we have never explained how the fact of seeing can lead, beforehand, to reveal to the eye how the movements of the hand

-335- or any other member capable of moving, must be directed.” (*Sense and intelligence*, p. 374).

Without a notion of distance, one can actually know nothing about the extent and we reach, without doubt, only by the movement to a notion of distance. But, if space cannot be known by sight only, however, it is given by it, anyway. The appreciation of distances by the eyes alone is very insecure; an inexperienced child holds out his hands to the moon with the illusion of touching it. It is nonetheless certain that the distances of the bodies are given by the same view, we see the bodies precisely where they fit in the extension. This is proved by the fact that the same distance of inaccessible objects may be measured by the eyes (triangulation).

The moon, for example, is obviously for us an inaccessible object; yet its distance, however, is known with sufficient safety. The distance of the moon in relation to us can be conceived as a straight line, one end leading to our eyes and the other to the moon. This line was measured and that could be done because we see the moon at its end, because to measure a line one must in some way go from one end to the other.

However, when it comes to measuring the distance of the moon, there is no movement towards the object and, on the other hand, this distance is a large number of miles and cannot be contained in our visual impression which, strictly speaking, has no extension. So, what do we mean by saying that the location and the distance of the moon are given to us by sight? This fact cannot be explained except in the way I have already said in Part One (p. 108 ff.) And I am going back to it with more developments, that our sensations are such that they appear as the bodies in space. This is how the distance of the bodies

-336- is given us by sight, although sight alone cannot make them known to us. This knowledge requires, as we have shown above, other experiences that correspond to the movement, but this does not suggest a real space or things and phenomena in space which are mere sensations in us.

It is beyond the scope of this chapter to search how, exactly, and by virtue of what natural disposition, each kind of sensation contributes to the perception of the bodies and space. This psychological aspect of the idea of extension is here, for us, of a secondary interest. We must, on the contrary, focus on the ontological aspect and the question of knowing which property of the objects makes them appear as existing in space.

I have already shown in Part One (p. 88) what this property is. It consists in this that the objects represented in space (the bodies) are as to their concept, substances (unconditioned objects) existing independently, both of a cause of the exterior world and the knowing subjects, without any internal relation with one another. As long as we disregard this quality of things in space and space itself, the theories relative to the bodies and extension will only end in endless debates and no clear explanation will be possible.

In addition to the two already established properties, space has a third one, namely its geometric nature, the perfectly organized system of Laws according to which its determinations agree with each other and whose knowledge is the focus of Geometry.

Of its end, to be a medium for substances or better yet a form to the idea of coexistence of substances, can be deduced, *a priori*, a property of space, namely that of

-337- containing in itself the totality of all possible directions, and this for the following reason. Because substances, that is to say existing, unconditioned beings themselves, have no original connection and their relations are in no way predetermined and invariable, a plurality of substances must be conceived in an environment that allows all external relations and thus contains the totality of all possible directions. This property of space of containing the totality of all possible directions causes every body to be surrounded by space on all sides and, therefore, to be separated from all sides of other things, which mutually founds their substantiality (1). So, this is the fundamental quality of the space, that which unites its ontological

nature and its geometrical nature. But, the connection between these two natures does not go any further. Neither from the concept of juxtaposition in general, nor that of a juxtaposition of substances and, hence, from space in general, can be derived one single geometrical theorem and not even the Principle that space must have three dimensions.

And, it is not difficult to see why from the concept of space not one geometrical property can be derived, except those that have been indicated above. The reason is that, according to its notion, space is an environment for substances, that is to say for things that have between them no essential and original relation; its geometric properties, on the contrary, are the Laws of the union of the diverse in it (its various determinations in relation to one another). The geometric side of space thus accords not with its ontological side - outside the property mentioned above, of containing the totality of all directions - and cannot in any point derive from it. If, therefore, the knowledge of

(1) Later, in the chapter on the scientific theories of the bodies, I shall show in more details that space excludes the possibility of an internal connection between bodies.

-338- geometric Laws is *a priori*, it is based, as Kant has shown, on an *a priori* intuition, not on simple concepts.

§ 2. – On the origin of the idea of space.

On the origin, or at least on the fundamental conditions of the idea of space, we can get a fairly accurate idea if we know, on the one hand, the content of this idea and, on the other, the nature of the data used to form it. The immediate data of our general experience are our sensations, and these contain nothing of space and they are not in space. Space is not how sensations are in us, but how substances exist outside of us or are thought to exist. The spatial extent can, therefore, never be immediately perceived, because it is not contained in the objects of perception, in sensations. The idea of space can, therefore, result only from an interpretation of sensations. What are, then, the conditions supposed by this interpretation?

How do we come to represent ourselves things in space and not in another form?

We have already seen a condition of this fact, namely that our sensations are arranged by nature so as to appear to us as things in space. They could not otherwise serve for the formation of the idea of space.

But, that is not enough; because, the knowing subject can know nothing from the beginning of this natural disposition of sensations.

To represent the sensations in space, the subject must also be naturally disposed by nature, have in itself a key or a Law to interpret them and, on the one hand, with regard to the ontological aspect and on the other, with regard to the geometric aspect of space.

In space, we only represent substances;

-339- Space is the juxtaposition of substances. To form the idea of extension, we need, as has been sufficiently shown above, the disposition of the subject to imagine everything as a substance, a disposition by which the general form of our experience is conditioned. For, the substances are not given in the stuff of experience, and even though they would be given, they would not be perceived in the passive way we perceive the quality of blue or soft. Substantiality is not a perceptible quality, such as color, taste or smell. But, the disposition of the subject to imagine everything as a substance that affects the overall form of the experience cannot alone condition as well the special particularity of the idea of space; from the ontological aspect of space, we cannot, as we have already said, deduce the geometric aspect. The geometrical properties of space cannot be provided either by the fundamental Law of thought or by the simple data of experience. A particular disposition of the subject is needed to constitute them, and this is what Kant meant when he called the idea of space an *a priori* intuition. We must not understand by this that the idea of extension is fully formed in us from birth; it is rather formed by experience or, more precisely, with the selfsame experience; but, its formation is in the subject. We are born with no beard and no teeth, but with a natural disposition to have them; it is the same with the idea of space.

The arguments used by Kant to prove the apriority of this idea in his *Metaphysical Exhibition* and in his *Transcendental Exhibition*, are undoubtedly correct but incompletely developed. Kant leaves out the psychological aspect and partly also the ontological aspect of space:

its geometric nature was for him almost the essential. We really could not require from him to have given for this object an

-340- explanation exhausting the question. This is already a great service to have prepared the true theory. Thus, he rightly states that the relations of extension in the given stuff of perception would not have been known without the disposition of the subject to have an intuition of it in space; because, this stuff contains in itself, regardless of how it is dealt with by the subject, nothing of space. It is an accurate remark of Kant, that space is a necessary idea that cannot be suppressed itself, although one may very well make abstraction of all things in space. (1) Herbart's objection that space means the pure possibility of external things and as such naturally cannot be destroyed after we recognize the reality of things, is not valid. For, a mere possibility cannot be measured, and we can measure the empty space and know it as a magnitude. This is the fact against which all theories finally founder which assume that the idea of space has an empirical origin and that things actually exist in space.

We cannot say that space is a pure nothing; because nothing can be measured and possess a lot of qualities (geometric qualities). We cannot say that space is simply the order of juxtaposition of real things; because, this one order cannot be represented apart from all things and exist where there is nothing (like empty space.) We cannot say that space is abstracted from the knowledge of things, because it is not an abstract object like time, but certainly a concrete object

(1) This is not to say that space can be conceived without any psychological content, but without an ontological content. The space that we imagine must be a color, or have a substitute of color. Similarly, there must be in its idea, latent though they be, experiences of the sense of touch and of the muscular sense by which this idea was first realized. But, one can conceive the void of any real thing.

-341- though an ideal one. (1) Without empty space movement is inconceivable, because the movement is the change of the reciprocal positions of things in space. So, if we admit real things and movements in space, we must admit the existence of a real void space. But, according to the just remark of Kant, such a space would be an absurdity, a nothing that would have different attributes of real things. Kant, therefore, rightly concluded that space is an *a priori* intuition without objective reality.

But, the final reason for the priority of the idea of space is always that in the actual data of experience, the sensations, there is no space and cannot, therefore, be derived from them. All purely empirical explanations of the idea of space are, therefore, only sleight-of-hand. I shall give more comprehensive clarification of this in a later chapter on the perception of bodies.

(1) Stuart Mill made the remark: "Space, he said, can be described as a concrete name of an ideal object, extended but not resistant." *Rem. on J. Mill.* I, p. iii.



Chapter 3

If we primitively distinguish other things

The question of the origin of our knowledge of the external world cannot be solved unless we first answer this first question: how does the knowing subject succeed in distinguishing itself from other things, things that are foreign to it? Is this distinction immediate and intuitive or does it happen in any way in life?

For, the doctrine that admits some special "external sense" this question does not exist. Because, for it, an object is known

-342- as outside and separate from the self by the very fact that it appears under the form of the "external sense". But, this doctrine is unacceptable. There is no special "external sense". We cannot know a thing as external and foreign to us, because it has an external sense - because this knowledge and this distinction is not generally a matter of senses. On the contrary, we would not know anything as separate from us, if in the content of our perception there were nothing really foreign, whose foreign character and non-adaptability to our individual essence hurt our consciousness. The concept of foreign, of not-me, is larger than the concept of outside or of existing outside of us. An object cannot exist outside of us without being distinct from us, without being foreign to us; but, there could also be found in us many elements that are foreign to us. The distinction between self and non-self must necessarily precede that of an outside world.

I shall establish just two points.

1. In our immediate perception, in the given content of our experience, we have elements that are really foreign to us, individual subjects, which do not belong to our self. Such are, for example, all the objective sensations, as colors, sounds, tastes, smells, sensations of temperature, etc.
2. We are immediately, intuitively aware that the content of these sensations is foreign to us: the distinction between self and non-self, the distinction between what belongs to our own individual being and what does not, is intuitive, original, cannot be acquired or derived from other Laws.

Let us go back to the first point. However imperfect may be our knowledge of the unity of the self, I believe I can assert that it would be entirely incompatible with this unity

-343- to admit that all the varied content of our objective sensations belongs to the self itself and is an integral part of our individual being. It would imply contradiction were we ourselves blue or red, sweet or bitter, etc., as we are happy or sad. Our self were itself as diverse as the outside world that we know. Philosophers since Locke, are probably used to thinking of colors, flavors, etc. as modifications, conditions or accidents of the self just as the figure of a body and the place it occupies in space are mere accidents of this body; but, certainly this view is not entirely accurate. The figure, the place are not something real, which would have a quality, regardless of the objects in which they are seen; they are mere relations of bodies or parts of bodies in space. If a round body becomes squared, its previous round form simply disappeared: it has no inherent quality or determination, independently of the relations of body parts considered with another in space. But, can the same be said of a color or flavor? Certainly not.

The blue or red color, for example, is obviously a real content that does not exist outside of us, but which may well be represented outside of us and indeed is thought of as such, that is to say as quality of external things.

The color sensations are accidents of the self but not in the manner the figure and the place of a body are accidents of the latter, but rather in the manner various objects placed in a box and which are pulled out could be called accidents of this box.

The self is not the substance but, rather, the reservoir of these sensations. It is quite different with the feelings of pleasure and pain. Those really are states of the self, which cannot be thought of or represented independently

-344- of it. If a happy man is saddened by any cause, his joy was wiped out as well as the figure of a deformed body. Joy is as little something in itself as the round and the square.

But, the main fact which proves that the objective sensations do not belong to the self, are different from us and are foreign to us, is that in the same circumstances they are common to all knowing subjects and that their Laws are beyond our individuality, of its individual states, its destiny and its Laws. All men who perceive the same object in the

same circumstances receive the same impressions and the same objective sensations.

Although the view of the same object may awaken in many people very different movements and associations, visual impressions, however, are the same in all. Similarly, the same word can act very differently on the minds of many; it may not be understood at all by one, frighten another, give courage to a third; but, the sound itself, its strength, its height, its pitch and articulation are identical for all.

It is the same for the Laws of objective sensations and the order of their appearance in our perception. These are things quite independent of our individuality. No matter what, I always see the same objects in the same way, I always hear the same sounds, the same sounds in the same way, I feel the same smell, etc., at least until my organs remain in the same state. If I, for example, go to the window of my room, I get some of the same impressions of yesterday, partly different impressions, but this similarity or this difference are completely independent of my states, of my changes.

They are the same, indeed, if the objects outside my window are the same as yesterday, and different, if these objects

-345- have changed or have been replaced by others. The Laws according to which the objective sensations follow each other in my self depend, in no way, on my will or my individuality.

These are the Laws of nature that we have, as much as we can, to discover and use, but to which we also need to submit. The fact that the Laws of our objective sensations are independent of us, the knowing subject itself, is the reason why the belief in a real external world as the cause of our sensations is so hard to destroy despite the clearest objections .

If it is established that the objective sensations do not belong to our subjective nature, are a real non-self, it is not difficult to show that the knowledge of this non-self as such, that is, the difference there is between it and us, is primitive and intuitive because there absolutely cannot be any other criterion for this distinction but precisely the primitive intuition of the subject.

If the difference between two things, A and B, is in the way they are perceived, such as red and green, bitter and sweet, there is obviously no need for a criterion to observe it. But, if the difference of A and B

that we want to observe is not in the way they are given, is not in it, but in their relation to a third thing C, if one does not know how A and B differ from each other (in themselves), but how they stand in relation to C, - then a criterion is obviously necessary and this criterion cannot be other than the thing C or the knowledge of that thing. Now, the difference between what is proper and what is foreign is precisely of this kind. It does not concern the nature of the perceived given content but only its relation to the knowing subject. The criterion to distinguish what belongs to the subject or is foreign to it cannot be, according to the above, but the

-346- knowledge of the subject itself. The assumption that the subject must learn to distinguish itself from anything else turns in a circle. Because, the criterion for that distinction is precisely the same knowledge of the subject which, following the said assumption, can be acquired only by means of this criterion. If the subject, in fact, originally had no experiential knowledge of itself, this distinction may occur in consequence of a primitive intuition of the subject, as a result of a primitive faculty to distinguish in the perceived content that which is proper and that which is foreign to it.

To avoid any misunderstanding, I must point out that the awareness that the self has of itself is capable of a very variable development. It would of course be laughable to affirm that a newborn child, even remotely ready to have himself as particular subject, a consciousness as developed as ours. The primitive intuition reduces to this, that the subject, from the beginning, can distinguish in the given content of the perception what is proper and what is foreign to it. This distinction is obviously primitive or intuitive. It would still be ridiculous, of course, to affirm that the child must first learn to recognize in a feeling of pain that it experiences something that belongs to it and to differentiate it from this point of view of its sensations of sound or flavor. Not only is it certain that we feel ourselves pain, if such a feeling is in us, and that we are not blue when we perceive something blue, but it is as certain and beyond doubt that, from the beginning, we recognize our state as pain and given that, on the contrary, we do not regard as our state the color blue given or perceived, that we do not know ourselves as blue. If the ability to make this distinction were missing from the beginning, as I have already shown, never could it be acquired.

-347- It is useful to clarify this point to mention the mistake in which fell that excellent thinker, John Stuart Mill. According to Mill, self-

consciousness, as the distinction of oneself and other things, is based on memory, on the memory of previous states."The identification, he said, of a present state with a state we remember and we know as past, is in my opinion the knowledge (*the Cognition*) that the self is what feels the state." (1) The identification of this condition with a past state presupposes the identity of the self and the consciousness that it has; but, for this very reason, it cannot produce this awareness. The simple identification of two states separated by time can only produce the awareness that the two states belong to a single object that remains permanent in general, but not that they belong to me, to my self. If I enter for the first time today in my study and I find everything in the same place and in the same order as yesterday, I do not conclude that impressions are today as yesterday mine and identical, but that the objects in the room remained the same today as yesterday. The awareness that a past state is mine cannot in any way occur but as the awareness that a present state belongs to me. If I cannot recognize as my own a state while it is present, I can still less recognize it as mine if it is already past and lives to me only in memory. For, the knowledge of the past as such always presupposes the consciousness of the identity of the object to which is related the past state, as I shall show in the next chapter.

I can as well remember my own states as the states of other things and recognize them; this recognition

(1) *Exam.*, p. 252. - Stuart Mill expresses the same in his remarks on the book by J. Mill. p. 329.

-348- provides, therefore, no criterion to distinguish between what is proper to us and what is foreign to us.

Another widespread theory makes the distinction between the self and other things dependent on the distinction between our own body and other objects. Only, this theory is no more sustainable and shows an example of the ease with which one takes as founded in truth and even self-evident something that is, however, contradicted by the most obvious facts.

Like many men having reached adulthood never differ in thought from their body and that, in primitive times of culture, no one would think of this distinction, we believe we have to admit that we recognize originally as a body, or we take our bodies for a part of ourselves. But,

this assumption is contradicted, as I have indicated, by the same facts. The following will clarify it.

Our self is based on the consciousness of ourselves; we are only because we know ourselves. Here is what follows: that alone is part of our self that is part of our awareness of ourselves, what we know primitively, intuitively, as proper to ourselves. But, it is impossible for us to meet primarily in our awareness of ourselves our own limbs, hands, arms, legs, etc., as parts of ourselves, because the perception of these members, and Physiology testifies of it, is possible only through the nerves and brain. In ourselves, in our consciousness, we find neither feet nor hands, but only the result of nerve impulses that begin there. The way of being of our feet, our hands, our other members, we do not know otherwise than that of bodies that surround our bodies, by sight and touch. If any part of the body could be found primitively

-349- in the consciousness of ourselves and be known as a part of the self that would obviously be the nervous system and the brain mainly because it is the closest to us and has an immediate influence on our inner states: but, what do we learn from the facts in this regard? That we know nothing and can know nothing of our nervous system and our brain by personal, inner experience. We can live a hundred years without suspecting that we have a brain. Moreover, Humanity has lived for thousands of years without suspecting that the nerves and the brain had anything to do with psychic phenomena, the phenomena of the inner life. It is, therefore, clear that if people without culture cannot separate thought of their body from the idea of their self, it is a pure effect of the association of ideas, of the habit of thinking in one and the other at the same time; because, the connection between us and the body is known, as has been shown, not by an immediate intuition, but by induction, in particular a reasoning on the fact that changes and body movements are always followed by changes in our sensations, our inner states and follow our own desires in an inexplicable way. When I saw for the first time my hand in my body, it had to seem to me as something as foreign as any other object and it is only because of the external experience that I noticed that it is more closely united to my self than another body, seeing that the movements of my hand always correspond to my desires and that any contact with my hand was sensitive to me at once. (1)

(1) Professor Preyer refers (in his Article *Psychogenesis*, Deutsche Rundschau, May 1880,) to his observations on small children: "On the contrary, his arms and feet appear to the child, even after many months, as something foreign that does not belong to him; that he looks upon with surprise; that he observes closely and tries as objects always present. He grabs his feet with his hands and draws them to his mouth, and even at four years he bites his own arm so hard it hurts. He gives his feet biscuit to taste, like unto the wooden horses that serve as toys. "

-350- A distinction between ourselves and other things must precede the knowledge of our own body. I could not know my body as mine if my self were not known to me first and I were not distinguished from other things.

It should also be noted in general that my self is indistinguishable from the knowledge of my self. I am in fact as I know my self and have known my self according to my essence. I have often had occasion to point out that the given non-self, the one alien to me in perception, that is to say the content of my objective sensations, is originally linked to the existence in me of the knowing subject; that the two things (the knowing I and the non-self) are mutually dependent, not only in their successive states, but also in their very existence. It follows that the self and the not-me - and by that word is not of course meant a body, something independent of the subject, but only the objective sensations - do not belong to two different worlds or do not come from two different worlds, but form a unity by a side of their nature which evades our perception. But, I am not that unity and it must be remarked particularly. In this my empirical determination, I am as I know my self and have to know my self according to my essence. The objective sensations, therefore, are really foreign to me, precisely because I have to recognize them as foreign. By some careful research on the colors, sounds, smells, etc., I can learn absolutely nothing about my true being and this is proof enough that these qualities do not belong to it. The knowing subject that in

-351- the given content of the perception distinguishes its own and what is foreign to it, forms, thus, the criterion of this distinction. Because, the fundamental Law of its knowledge of itself is one of the constituent factors of the knowledgeable world in general. The distinction between self and non-self is necessarily original, immediate or intuitive.

Chapter 4

Knowledge of Successions

The theory that we know by memory the past as immediate past is one of those that we must reject as absolutely untenable. The past, in fact, that is to say what is no more, is obviously not an object of perception or immediate experience. If we think of an object, the idea is present in our mind. But, the essence of an idea is, as we know, in the affirmation of its object, in the belief in its existence. An idea cannot, therefore, provide any sign of which we can immediately deduce the non-existence of its object. There is unquestionably a difference between the idea that corresponds to an object present (that is to say, a perception) and the idea that does no such thing (that is to say, a simple memory). This difference can be observed naturally, as any piece of information. But, to conceive the significance of this difference, to see that to one of the ideas an object corresponds and to the other none, conditions are necessary outside of these ideas. Consciousness of the past and of the non-being is much like consciousness of falsity. In both cases, the reality of the idea

-352- is denied and negation can never be in the essence of particular ideas and be derived from them. The past, like the false, can be known only by reasoning, and following the same Principle, namely the general idea that an object cannot be made in various ways or be different from itself.

As soon as two divergent ideas are formed about the same subject, we must, by this Principle, choose between them and, then, for the first time we can realize and see the difference between perception and a mere memory and also between a being and a non-being, an object present and absent. Let A be the quality or perceived nature of an object and B its nature simply reproduced or remembered; I must, according to this same Principle that the object can not be both A and B, conclude that A is not currently B; for, the certainty that it is currently A overrides any other immediate perception. But, if, however, there are in the idea of nature B signs that produce and authorize the belief that nature B was seen in the same object, the consciousness of non-being is changed into that of the past. If nature B is specific to the object and yet is not actually its own, it must have been its own previously; there is no other way. The idea of past and succession is far from being, as Kant would have it, an *a priori*

intuition or something based on such an intuition; it must come to the subject through experience.

Here, we must first answer the question of how the memory of an object or an event actually past can be distinguished from an idea that answers in the past to no real object and that is purely imaginary. This distinction is obviously made possible only by the associations that unite the memory of objects originally perceived to our current perceptions. The whole course of our past life forms, to the extent it is still fresh in our memory,

-353- a linked series whose factors are united by association. Changes of my homes and my destiny in general, what I felt and experienced, all this repeats itself in my memory, not in isolation, but with the connections contracted at later times in my consciousness. If I perceive or if I feel something that ever happened to me already, actual experience suggests, under the Laws of association by resemblance, the previous experience that resembles it; in other words, I remember that I have already seen the same subject once or another similar one, that I perceived, in general. These ideas reproduced awaken on their part, according to the Laws of association by contiguity, the ones I have had at the same time or in close succession, that is to say that I remember where and when I have seen the objects in question before. It is like this, first, that the reproduced ideas change into real memories. If I come, for example, to a city that I have already visited, I remember my first visit and many things that then happened to me. At the same time, I can remember where I was before that visit, the motives that made me do it, etc., to the point where my memory begins or ends. A purely imaginary thought, the idea of that which was neither lived nor experienced does not lend itself to such associations. I cannot link the object of such an idea to my previous experiences. I cannot say to myself, I saw it at such time, in such a place, because in my memory, it is associated with no time and no place.

That is all for the particular facts, the experiences and, somehow, the historical parts of our memory. Regarding the general facts, the knowledge of genres, the Laws of nature, it is even more obvious that it is originally produced in our consciousness by the association of ideas of things; it is on this that originally rests any induction. Only in this case, the association with our

-354- real experiences no longer provides an absolute guarantee of the correctness of our ideas, as in the historical part of our memories. For, from the fact that I actually experienced similar cases of succession and simultaneity for certain phenomena, it does not follow that the inductions I based on them, the general views I have deduced from them, are accurate; and how we may distinguish the good inductions from the bad, this is an issue that does not belong to this chapter.

Knowledge of the past, as such, renders possible the knowledge of the change, the succession, as such, or rather these two knowledges are one and the same. As soon as I see that an object had once a different nature from today, I know by this very thing that it has changed. The awareness of the mutability, as well as of the change and succession, can only occur in relation to an object known as permanent and identical. If a change occurs before our eyes, or, in general, in our perception when we can follow the successive phases of this change in a continuous succession, the determination of the identity of the object changing, as also the knowledge of the successive changes in it, is thereby facilitated. But, never can a change as such, a succession as such, be perceived. Since the parts in fact of a succession do not coexist, but past moments must necessarily have happened when we perceive the current moments, we should be able to perceive a succession as such, to perceive as past, not existing anymore, the moments that are past and no longer exist, something which is obviously impossible.

Now, we ask, How can we distinguish between changes and subjective states, the simple changing of our perceptions and objective changes,

-355- facts happening outside us? To Kant, who considers any known succession as a simple manner of intuition of the subject, it is, as we know, very difficult to answer this question and how he tried to solve it leads to even greater difficulties. It is only by means of an *a priori* concept of causality; it is only because we submit successions to a rule that we could, according to him, consider them as objective. In Part One of this work, I have already shown that this doctrine of Kant is absolutely unacceptable and it is simply absurd to claim that we can know the causal Law of changes before knowing the changes, or to predetermine them anyhow. All changes are real, be it they occur within us or outside of us, but no movement manifesting outside can obviously be given us, because everything already given is *ipso facto* in us. We must, therefore, answer the question of how we

distinguish successive changes and objective changes in us and outside of us. But, this question is not difficult. Since a change in general can only be known with respect to an object that remains identical as such, we will acknowledge as subjective the changes and successions that we relate to ourselves and as objective those we relate to external objects. If we have already shown how we relate our perceptions to external objects, we have at the same time answered the preceding question. However, there is a particular point to be clarified.

The opposition between subjective changes and objective changes is not always taken in the broad sense mentioned above. It is not all the successions of our sensations that we oppose to objective phenomena as purely subjective, but only those in which

-356- we know a simultaneity of the objects and which in ordinary experience do not appear at all themselves to consciousness as successions. The transition from pleasure to pain, for example, or even the successions of sounds in us, happen without any distinction of particular external phenomena; but, it is not the same for the succession of our sensations of sight or touch, by which we know a plurality of simultaneous objects. If I look from right to left, top to bottom or *vice versa*, the house that is in front of my window, perceptions will always follow one another in my mind and this series of changes must be distinguished from those occurring in the house itself. This distinction is precisely what seemed so difficult to Kant and which in fact cannot be explained by his hypotheses. But, if we do not deny the reality of successions in general, we easily understand the distinction in question because the data required to make it are in our very perception. The objective changes, which occur in the home independently of me, are recognizable as they occur in the series of my sensations as I am resting. For example: the house in front of my house has five floors and five windows in each. All windows are closed and their shutters open. If I look at the house from left to right and from top to bottom or *vice versa*, I still have the same series of successive perceptions.

In my ordinary experience, I know nothing of these successions as such; what I know by them is the house whose parts are simultaneous and unchanging. But, if in this same sequence of perceptions a change occurs, if for example looking at the house from right to left, I see the third window from the first floor, which was previously closed, now open, or the shutter which was

-357- closed now open, this is evidence of a change in the same house, quite different from my own states, my own perceptions. So, I have to attribute to such a change an objective cause distinct from myself, which is confirmed by experience. I know, in fact, that someone opened the window and it was just ajar and the wind opened it.

Our objective sensations do not belong to our own being; they are a true non-self and are subject to Laws independent of the subject that we are, or rather of any particular subject and yet they are so well adapted to the fundamental Law of our mind that we can always recognize in them the same objects, objects that form in their relations a well-organized world and whose experience and natural sciences must explain the regularity.

It thus became possible for us to recognize changes in the successions of perceptions themselves as events in the outside world, without our experience ever denying it, because all experience is, in fact, adapted to the knowledge of our sensations or their groups as bodies in space. We will prove it amply.



Chapter 5

Demonstration of Idealism (1)

§ 1. Preliminary remarks.

Before talking about bodies and the perception of bodies, we must examine whether the hypothesis of real bodies

(1) One might think that this title, "Demonstration of Idealism" is not appropriate and it would be better to say "Refutation of Realism". Indeed, since Idealism is essentially the negation of the realistic belief based on the natural illusion, demonstration of Idealism is itself a refutation of Realism, just as, conversely, there would be no other refutation of Idealism than the demonstration of Realism, which, frankly, has never been and will never be made. But, as Idealism implies a positive consequence, namely the recognition that our experience contains an illusion, I preferred the title "Demonstration of Idealism."

-358- or external things is generally valid or not. This review will serve as an introduction beginning with this chapter to the following chapters.

By the expression "outside world" two things can be understood:

1. Either the bodies we in fact perceive, see, feel, touch, etc.
2. Or external things that are not themselves perceived, quite different, therefore, from the bodies of our experience and unknowable, but by hypothesis produce our sensations.

What makes it especially easy to mistake about our issue is that we confuse an external world purely hypothetical and imaginary with one which is actually perceived, although we willingly recognize, in general, that a truly external world cannot itself be perceived. Now, it is evident that there are here two entirely different things and, consequently, we must divide our demonstration in two parts, and establish:

1. That the bodies actually perceived by us are not anything other than our sensations;
2. That there are unknown external things that produce our sensations.

§ 2. Demonstration of the identity of our sensations and perceived bodies.

Regarding the bodies we perceive in reality, I have already experimentally proved in Part One (p 81 ff.)

-359- that they are not anything other than our sensations.

This experimental demonstration has really settled already the debate because the facts are final. However, for more clarity and certainty, I will give here the complementary reciprocal evidence that if we subtract from the perceived bodies all that constitutes our own sensations, there remains nothing real.

Since the bodies, as to their concept, are substances, independent external objects and, therefore, quite different from our sensations, the first step of logical thought is not to give to bodies any of the qualities given to the sensation. It is here that begins a truly scientific theory of bodies. They cannot be in themselves either colored or bright, hot or cold, sweet or bitter; they have really no sensible quality. But, since all real qualities are given in our sensations, the bodies themselves are without qualities. They are left with no other specific character other than being in space, filling space and acting on one another.

But, the property for something of filling a space, of being extended, is logically contradictory. For, what is extended is present both at different points of space and there is an immediate contradiction in the thought that one same real thing be present simultaneously in different points in space. The essence of extension, in effect, resolves, if we look at it closely, in pure externalities, that is to say, a nothingness. What is extended is composed but, nonetheless, composed of nothing, since all its parts, small as they can be supposed, are themselves extended and divisible to infinity and still composed. Bodies, therefore, have no inside because all bodies can be parted in the middle and then what was inside is put outside, becomes a pure surface, and so on to infinity.

-360- Besides, the contradiction of the essence of infinity has been established so often that I do not need to insist on it. To fill space, the fundamental quality of bodies, is thus not a real quality. (1) But, one thing that has no real qualities is actually not one thing but a pure thought, an abstraction. The bodies of our experience, stripped of all sensible content, are, therefore, simple ideas in us.

"But, the bodies act, it will perhaps be said, and if we do not know what they are in themselves, what they are in their qualities that escape

perception, we feel their actions, nonetheless, and it is then impossible to doubt their reality."

I ask that we do not commit the confusion already signaled of a world we perceive in fact with an external world purely imaginary and unknown. Is our perception the effect of a large number of unknown things or not? This is a question which we will examine in the next chapter. But, regarding the bodies that we know in reality, we know they do not have any quality we can perceive or not, they are mere ideas in our mind. To say that we know the bodies and at the same time affirm that we do not know what they are in themselves, that is to say that at once we know and we do not know the bodies, is contradictory. For, the in-itself of a thing is precisely the thing, itself, its own essence. If one argues that we do not know the external things as they are in themselves, then we confess that we do not know them at all,

(1) If we deprive the final elements of the body of any extension, if we conceive them as mere monads or centers of forces, we go from Physics to Metaphysics. Because, we cannot regard as elements of bodies of our experience monads or centers of power. These are then external things quite unknown, purely imaginary. We shall soon see what to think of it.

-361- but we know something that is quite different, namely their action on us. However, we know the bodies of our own experience: they are the object of our perception and, since the real external things can not be perceived themselves nor immediately known, it is necessary to admit that, as we have already shown experimentally in Part One, we do not perceive real bodies but only the content of our sensations as bodies.

The above has demonstrated that what we actually perceive as bodies does not consist of anything other than our own sensations. If we admit, then, a real external world, we must mean by this a world of unknown objects, different from the bodies of our experience, of which we know neither what they are or where they are or how they act. But, then, the question is transferred from the field of experience to that of Metaphysics. The question of knowing whether an unknown outside world exists or not is for experience and the natural sciences, absolutely worthless. To answer by yes or no, the facts remain outside and are not affected as long as our sensations occur in the same order

and according to the same Laws, they will be perceived as the same world as of today, whatever may be the cause of the sensations.

This is precisely here, in effect, what we never see. We are always willing to believe rather that if there were no real bodies, there would be no perception of the bodies such as ours. But, this belief, we have seen, is fully belied by the facts. Just think that everything we perceive through the senses does not consist of anything other than our sense impressions and cannot be anything else - then you will understand that to make possible our perception of the bodies, it is not at all necessary to have

-362- the corresponding bodies but only that our sensations follow one another in exactly the same order as now.

In fact, how could we perceive the absence of the bodies while we had exactly the same impressions as when there are bodies or, to be more exact, in the ordinary sense of the word, we perceive bodies? Dreams, hallucinations, illusions of the senses provide indisputable evidence, in fact, that an appearance of perception is possible in the absence of real bodies and that the content of perception is, therefore, the same, whether there are or there are not real bodies outside of us. The illusion of dreams and hallucinations would be absolutely impossible if the content of perception in those states were other than in the normal state and while awake.

It is, therefore, a fundamental and indisputable fact that our perception of the bodies (objective) (1) is entirely conditioned by the order and regularity of our sensations.

This fact cannot be questioned after the double experimental and analytical evidence that our sensations are themselves what we perceive as bodies outside of us. In the debate between Idealism and Realism, this point is waved; the debate is now centered on the following question: Can the given order and regularity of our sensations be explained exclusively by the action of external bodies or must we necessarily assume or not a multitude of things outside of us?

Let us examine this question.

(1) There is also in the nature of thought a subjective cause of our perception, as we shall see in the next chapter.

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§ 3. Demonstration of the non existence of external things as causes of our sensations.

To correctly understand this question, the reader should be mindful of the confusion oft-mentioned but never quite energetically enough and almost impossible to destroy, that of the bodies of our experience with external things merely assumed and unknown. This confusion goes with the erroneous opinion that the knowledge of the bodies is the effect of reasoning, that we do not perceive the bodies themselves, but we know them through reasoning based on what we perceive. This view cannot be maintained against the fact that we see and apprehend the bodies of our experience. Already in Part One (p. 98-101), I showed that we would know nothing of the bodies if we had to conclude them. The bodies of our experience are themselves part of the facts of our consciousness and hence cannot be used in the explanation of these facts. The confusion of a corporeal world perceived with an external world simply assumed is precisely the confusion of the facts of consciousness with an explanation of these facts, which is, admittedly, made likely by the outward appearance but of which we need first test the validity.

If one has only once understood that the perception (objective) is conditioned only by the order and regularity of the sensations, that the bodies of our experience are part of the facts of our consciousness and, therefore, should not be used to explain these facts - we will clearly see how it is inadmissible and impossible to explain the regularity of the facts by the assumption of other things or other unknown causes. Absolutely nothing is known, in fact, of unknown things, even if they exist; how could they provide the means to explain the known? There should

-364- exist in the nature of things a reason which compelled to admit them, but we find rather the opposite. To want to explain the regularity of the facts by causes is nonsense, because all causality, all relations of cause and effect are made possible only by this same regularity, are part or moments of them and, therefore, cannot contain the reason.

In other words, to conclude to external causes of our sensations and of their Laws would be legitimate only if the induction based on the facts allowed it. But, the induction itself derives its value first from the regularity of the facts and for that reason it can never lead to the

hypothesis of causes and reasons of this selfsame regularity, as I have already shown (Part One, p. 95). Moreover, we can show that the induction based on the facts excludes any hypothesis of a plurality of causes. This will be the complement of the demonstration of Idealism.

It is a fact, as has been proved, that we perceive the content of our very sensations as bodies outside of us and that, as a result, our perception (objective) is conditioned solely by the order and regularity of our sensations. But, this obviously implies that, conversely, the order and regularity of our sensations are, in fact, appropriate to their knowledge as bodies outside of us and are in compliance with it. Because, without it, the form and content of our perception would not agree and the same perception would not be possible. We obviously would not know the content of our sensations as bodies outside of us, if that content had not been organized by nature to meet in fact this manner of understanding. It is precisely on this organization of sensations that the truth and the value (empirical) of our knowledge of bodies rest. This will be thoroughly explained later, but it must be cleared immediately.

-365- The fact that we perceive the content of our sensations as a world of bodies outside of us, also involves two internal facts that mutually condition themselves. Our perception is exclusively conditioned by the order and regularity of our sensations and precisely for that the order and regularity of the sensations are reciprocally conditioned in relation to the fact, for them, to be perceived as bodies.

I could boldly let the reader draw the inductive consequences of these facts. Any induction stems from a constant conjunction of facts and phenomena and results in a connection of these facts together. But, we found two internal facts that mutually condition each other. Hence, induction can conclude nothing, except an inner connection of these facts, that is to say a natural fundamental unit, an acting general Principle that unites not only the sensations of any particular subject but also the knowing subjects and produces the regularity and determination of their perceptions. For, we all perceive in our respective sense impressions one single world common to all. This Principle is thus what produces all the effects that seem to depend on the bodies. (1)

On the contrary, the facts are absolutely opposed to the hypothesis of a multitude of causes of our sensations. He who could even admit that external things are causes of our sensations, would not affirm that

external things are also causes of the fact that we perceive the content of our own sensations as a world of bodies outside of us. Only the order and regularity of sensations, as we have said, are directly appropriate and consistent with this knowledge because, otherwise, it would be impossible. Multiple external things would, therefore, be as unable to produce the order

(1) For the nature of this Principle, see the chapter entitled *Force and Law*, and one that is titled *Of the teleological observation of nature*.

-366- and regularity of our sensations as to produce our very perception or to perceive on our behalf.

He who cannot stick to the simple natural belief, admits with the vulgar that we immediately perceive real external things, that all men and all animals perceive the same world common to all - and for a long time, this has become impossible to all thinkers - this one specifically recognizes by that our experience contains an illusion. Because we all perceive, apparently, the same bodies, common to all, immediately outside of us. But, when it is once found that our perception is an appearance, it is not reasonable, as I have shown, to want to explain this appearance by the effect of a great amount of external things. To want to explain the regularity of the facts by the action of a large number of substances is the least admissible of all possible explanations, howsoever natural and reasonable it seems, given the external appearance because a regularity between substances is inconceivable. It contradicts the concept of substance which excludes all relativity. This is evident particularly for the bodies as I will show in the Chapter 7.

§ 4 Remarks and clarifications.

The above explanations have put an end to the debate between Idealism and Realism. After showing that the hypothesis of a real outside world cannot be proved first, then cannot serve in anything to the explanation of the facts of experience, we must recognize that this hypothesis is vain. However, the true theory, despite all its internal evidence, would not be cleared if we did not show whence it is hidden and almost masked for consciousness.

The true theory is precisely masked by the nature of knowledge: this is the explanation in question. The contents

-367- of our sensations are known by us as a world of bodies, that is to say substances. But, the concept of substance involves first that it did not start and is immutable. The actual amount of substances must always be the same. A plurality of substances must also, when we have the Intuition of them, be thought in space (1) and be subjected to certain Laws according to which spatial elements, such as position, distance, direction, speed, mass, etc., are determined. So, if our perception of bodies is possible, our sensations must follow in such an order that they appear to us without contradiction of fact as a world subjected to physical and mechanical Laws.

But, we as knowing subjects, are not internally subject ourselves to mechanical and physical Laws; spatial determinations, as form, mass, distance, etc., do not apply. In order for us to be included in the regularity of the extended, apparent world, we must appear as bound to a particular body that serves as an intermediary for our relations with this world.

This is the role our body plays whose union with our inner world is regulated by Laws different from physical Laws, according to which any condition of the body results in a sensation in us, just as, conversely, a feeling or resolution produces in the body movements that Mechanics and Physics cannot explain. It must follow that it appears to us we perceive both the bodies immediately and conclude them from their actions on our body, particularly on our sense organs. Thus, we see of the world only what our eyes allow us to see, we touch of it only what our hands grasp and we travel only the space on which

(1) See above the chapter titled: *Of the idea of space*.

-368- our feet can carry us, etc. It must seem to us that our sensations are produced, not as is the case by a natural and unnoticeable Principle, but by the multitude of perceived bodies, which changes, according to time and place, the grouping around us. There must also happen in our experience effects which, because of our ignorance of the circumstances or of the natural Laws of their appearance, seem to us unexpected and surprising and that we cannot explain, however, by a more careful search. And, in fact, the order and regularity of the sensations are so perfectly adapted to the knowledge we actually have of them as an external world that not only a concordant experience, but

an experimental science of the bodies is possible (which would be inconceivable with real external things,) a science that has an unlimited field of research and which verifies everywhere in this world of bodies the action of immutable natural Laws. On this perfect adjustment of the content of our perception to its shape, rests, as we have already seen, the truth (empirical) and the value of the theories of natural science and of experience in general.

The layout of our experience, whereby we immediately perceive the bodies themselves and know them mediately according to their action on our body, makes it more difficult to recognize what is actually real and produces the two fundamental mistakes we already mentioned, firstly the false opinion that knowledge of the bodies is derived, and secondly this belief, linked to this opinion, that the bodies of our experience must be confused with other external things, impossible to perceive but purely assumed, that we believe we have to admit to explain the facts.

However, it is necessary to explain things, to consider a particular case, because it is a question

-369- that Philosophy, *per se*, cannot solve and for the clarification of which we must resort to such arbiters as to stop any possible discussion. Imagine a target and then a shooter. The shooter is so close that the target appears to him as a picture as big as himself, with a wide circle and, in the middle, a black mark the size of an apple. The shooter moves away and then the target decreases, the circle narrows and the center appears no larger than a black dot. Was the target changed in anything by the movement of the shooter? Obviously not; it keeps its dimensions, be the shooter either near or far. It is, thus, a fact that what the shooter sees is not the target (that changes not) outside of himself, but the visual impression (which decreases as he moves away).

But, this fact is opposed by another quite different. It is that the shooter sees the target itself outside of himself and precisely in the exact place it occupies in space.

What proves this clearly is that the shooter, if properly trained, does not miss the target.

We have here, therefore, two contradictory facts, mutually exclusive: on the one hand, the fact that the shooter sees the target outside of himself and on the other, the fact that he only sees his visual impression. Only one of these two facts can be true, while the other is

only an appearance (1). Which of the two is real and which one is only an appearance? To resolve this issue, we must ascertain

(1) What we see can only be external objects or our own impressions, but not both things at the same time. Many people believe, in an obscure way, that we immediately see only our own sensations, it is true, but that we see in them the external objects. I think it is useless, after what I said in Part One, about perception, to show that it is impossible, that our sensations cannot be images of external objects and even less coincide with them, as seems to be the case for ordinary perception.

-370- what kind of certainty each one presents. The fact that we see our visual impressions has this kind of certainty that is specific to immediate perception which needs no proof and cannot be contradicted by any Principle. The evidence in this case, in fact, serves less to confirm the fact - that does not need confirmation – than to dispel the opposite illusion that we see the same things outside of us. This evidence is: 1. The fact that the objects seen diminish as they recede; 2. The fact that a simple pressure on the eyes is enough to move the objects; 3. Errors of the senses and hallucinations; 4. The testimony of the physiology of the senses, according to which our perceptions are never conditioned by the nature of external things, but only by the nature and functions of our sense organs. I have developed those reasons in Part One (p. 81 ff.) and they have such strength that not one thinker admits he sees or perceives, in general, objects outside of himself.

And, in fact, if we examine this assertion that we see the very bodies outside of us, we recognize that it has not the immediate certainty of perception. For, if it had this certainty, there would not be, there could not even be, any doubt about the reality of perceived bodies. We do certainly conceive, in fact, that our sensations appear as bodies outside of us - and this is the case, without possible hesitation, in dreams and hallucinations – but, it is inconceivable that real bodies immediately perceived appear to our thinking as mere sensations. Reflection can discover an illusion mixed with our perception but cannot recognize in a real perception an illusion or appearance; otherwise, the reflection would be equivalent to madness. And, it is even more convincing if we examine the reasons that seem to prove that, in our example, the shooter

-371- sees, not only his visual impression, but a target outside of himself .

These reasons are: 1. That the shooter, when close to the target, can touch and move it; 2. That, at a certain distance, he reaches it with his bullet; 3. That all believe they see the same target as he does and this belief agrees very well with all the other experiments and this in accordance with physical Laws. Let us examine these reasons and exactly appreciate their value and we shall see that everything real there, really perceived, belongs exclusively to sensations. That the shooter close to the seen target can also touch it, boils down to this, that he may experience tactile and muscular sensations corresponding to his visual sensations. That, at a certain distance, he can reach it with his bullet, simply means that, at first, he experiences the sensations of sight and also those of touch and the muscular sense that respond to the fact of holding and discharging a rifle and, then, those that accompany the reaching the target. The expertise of the trained shooter consists in that he knows how to bring the impressions that match the exact way to hold a gun, something that will become apparent through the clarifications I will give later, when speaking of the *teleological observation of nature*. Finally, the fact that other people also see the same target just means they have, under the same circumstances, the same impressions.

Never and in no way can we perceive anything other than our impressions. But, these impressions are so organized that we believe we perceive in them external objects common to all and coinciding in a perfect manner. That there be, for example, several persons in the shooting and all will believe with complete empirical truth and unanimously that they see a target outside of themselves. One sees it

-372- at maybe twenty feet distance, another at fifty, a third at a hundred, and to all three the target looks different.

This is proof that each does not see the target identical for all but only their individual visual impressions. But, these visual impressions are so disposed that they coincide in the perception of the same target. And, indeed, the visual impression changes with each movement of the shooter while, however, all these various impressions appear in us as the perception of a single object outside of us.

Here is how perfect the actual agreement stands between the order of our sensations and the idea that we have of them as external bodies. But, the logical disagreement between one and the other term cannot be dispelled by this; because, our sensations are and remain mere sensations in us and can never become actual substances outside of us. It follows that if one pursues to its last elements the world of bodies that we in reality perceive, we arrive, everywhere, to logical contradictions. The concept of body (of a thing extended in space), the concept of motion, the Law of communication of movement contain a common logical contradiction.

The contradictions further increase if we want to derive the other Laws, the physical and chemical Laws or the phenomena of the organic life of the proper essence of the body or body atoms (1). And, with regard to the relation of body and soul, one knows that on this question Philosophers have not known what to say or have arrived at some surprising theories, such as the "occasional causes" of the "pre-established harmony," etc., which, moreover, were not enough to explain the facts, unless we involve an almighty God. But, if we need for our explanations

(1) We have already proved it in part and will finish our demonstration in the following chapters.

-373- the help of God, this is no longer, according to the just remark of Kant, Philosophy but the confession that we are at the end of our Philosophy.

Thus, appears through an in-depth research and reflection the illusory and deceptive character of our knowledge of the world of bodies, its logical inconsistency. Whence, it follows that the doctrines of the natural sciences do not have an unconditioned value; in other words, the natural sciences cannot be a Metaphysics, as would be the case if the bodies of our experience were real substance and not a pure appearance of substances.

But, this error, this logical inconsistency, is revealed only to abstract thinking, to a penetrating reflection, whereas the factual consistency or the empirical truth of our knowledge of the bodies is renewed at every step in life and in empirical research and finds, at every moment, a confirmation in the facts. Hence, this unwavering belief no reason,

no rational evidence, can diminish in most people of the reality of the bodies outside of us.

That this systematic organization of appearance is really what exerts an invincible influence on people is seen, already, by this circumstance that in all cases where this systematic organization is lacking, as in dreams, hallucinations and other similar states, the illusion presenting us external objects is soon dissipated without difficulty. On the contrary, as a result of this systematic organization of appearance in the normal perception, we admit that our perception of the bodies is in itself a pure appearance and yet that the truth answers to this appearance, that according to the word of a writer, "it is organized by a trick of nature to correspond to

-374- objects." (1) No one thinks that without the systematic organization of appearance, appearance were not possible and the illusion could not follow that shows us in our sensations an external world. The organization of appearance is so far from supposing a necessary relation to a real world - it rather excludes it, as we have seen in the previous paragraph. It is precisely because the order of our sensations is adapted to the knowledge we have of them as bodies, that it cannot be produced by multiple external things.

The assumption that reality responds to appearance, that wherever a body appears to be is a real external thing though unknowable and, that any perceived movement of the apparent body must accompany the movement not seen of a real external thing, forms a curious contrast to the usual way of seeing. Following the ordinary opinion, external things and phenomena that occur are the causes of our perceptions; according to this supposition, our perceptions should rather be the very reason for being of external things and phenomena that occur in them. So, there should be, unknown to us, a world outside of us that would experience such and such movements, exclusively for our perceptions not to remain without corresponding objects in reality, although, between them and this world, there be no direct relation and our perception have as little need of the outside world as the latter of our perception. It is obviously superfluous to refute this theory; it merely serves to prove that even those who have penetrated in part the appearance, cannot however, always free themselves

(1) "Neither the external perception nor the other forms of knowing are the simple actions that apply to and end at objects different from themselves. These

are *simulacra*, ghosts or semblances of these objects, hallucinations most often true and, by an artifice of nature, so arranged as to correspond to objects." (Hippolyte Adolphe Taine [1828-1893], *On Intelligence*. 1870. I, 413-14.)

-375- of it. Probably nature turned mistress in the art of deception; this is no reason to have us eternally fooled by it.

However, if our perception of bodies is a mere appearance, meaning that no substance actually exists in space corresponding to it, it is not a pure appearance in the sense that no object corresponds to it in reality.

Our perception has, on the contrary, corresponding objects, namely our sensations. One of the foundations of the ordinary realistic belief is the tendency to only consider substances as real and conversely to see our sensations as something unreal. It is thought identical that a thing exists as a sensation in us or only in our idea. There is no doubt that our sensations are obviously not real in the sense that we understand the real; they are not, in effect, unconditioned and perennial things or substances; but, they have the same kind of reality that we and all the objects of experience have in general, namely a phenomenal reality, as empirical objects are different from the idea that we have of them. A feeling of pain is not a substance, either, and no one looks at it as unreal. Is it the same thing if we feel pain or if we have only the idea? Now this same kind and nature of reality that belongs to the feeling of pain also belongs to a sensation of color, sound, taste, etc. The tendency to count for nothing this reality has the same internal reason that makes us recognize in our sensation a world of substances (bodies); this is why we cannot conceive, in accordance with the nature and the fundamental Law of our thought, that the manner of being normal, that is to say the being only of a persistent substance, identical to itself and for which we attribute to all phenomena, all successions,

-376- substances as supports. The result is that we take our inner self for a substance, as we take the sensations of our external senses (that offer a content foreign to ourselves) for an alien world of external substances. In reality, however, neither in us nor outside of us can we find any substance but only pure sensations, feelings, ideas and similar phenomena, which always come and go. Everything in the world of experience is pure becoming, although the content of the experience is so organized that we believe to recognize in it durable substances.

It is no doubt beyond comprehension that nature is systematically organized for the illusion to the point that we seem to need to see things, touch them and move them when they do not exist as we think they do. But, this is to ignore the essence of reality around us to precisely suppose (and this is the true and deep foundation of realism) that the given reality must be understood and that it can be explained by the hypothesis of things outside of us. Previous developments have shown how much this assumption is inaccurate. The facts are not explained by the hypothesis of real external things, but to this incomprehensibility of the facts a new incomprehensibility is added that, besides its lack of usefulness and foundation, has the serious disadvantage of involving a logical contradiction. I have already sufficiently proved that the empirical nature of things in general is abnormal and thus is not susceptible of a valid explanation (1).

(1) To break the spell of the natural delusion, we have to understand that it has, one might say, this malice of presenting the true as absolutely incredible and giving, on the contrary, to mere appearance a varnish of truth, reason and strength. A remarkable and pleasing effect of natural delusion is precisely that Idealism which opposes it seems, to consider it superficially, to affirm something absurd and extravagant, while in reality it does not assert, but rather denies and denies, in particular, that the facts of perception can be explained by the hypothesis of a multiplicity of things outside of us. The realistic belief, in contrast, contains real absurdities, that is to say logical contradictions and even, as has been shown, in large numbers. And, if we understand that Idealism does not affirm but only denies, anyone who does not have a penetrating look can still, because of the natural delusion, easily imagine that Idealism denies the facts themselves. But, I have sufficiently shown what the facts are that Idealism denies. What is real consists solely of our sensations; a long time ago, thinkers have proved it beyond question. In all that concerns the outside world, we are not dealing so much with facts but with the conclusions drawn from the facts and, particularly, the metaphysical explanation of the facts. Idealism simply denies the possibility of such an explanation. We must always bear it in mind if we do not want to always be fooled by the natural delusion. Idealism is the most positive and the most reasonable doctrine; it consists in observing exactly what is and only refuses to draw unfounded and inaccurate conclusions.

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Chapter 6

The perception of bodies

§ I. The essential conditions of perception.

I outlined the **Principles** of an exact theory of our knowledge of our body in Part One (Book One, chapters 4 and 5) and in the last chapter of this Part Two; I, therefore, consider them as established.

Here is what has been proven:

1. Our sensations are themselves what we know as bodies;
2. The content of sensations is a foreign thing to us as individual subjects and they occur according to Laws that do not depend on us.
3. If we know that sensations are foreign to us, are different from us, it is the result of an immediate, primitive intuition.

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4. Bodies are, as to their concepts, substances, unconditioned beings.
5. Sensations are arranged by nature so as to appear as a world of substances in space.
6. Knowledge of sensations as a world of substances is not possible without a primitive Law of the subject, without the internal need for thought to conceive any object in itself, as to its true being, as unconditional, as substance.

This primitive Law of thought, which finds expression in the logical Principles of identity and contradiction, I have fully explained and proven in Part One.

I shall now show how this Law forms the Principle of our knowledge of the world of bodies.

The simple concept of an unconditioned existence would be in and of itself perfectly sterile, as Kant has already noticed; because, without knowing what could correspond to it in experience, it would be useless to us.

But, if the concept of the unconditioned, as I have shown, is a simple specification of the concept of identity to itself, things immediately change. "The identity to itself" in fact, is a sign whether present or absent, at least in some cases, that can be found in experience itself. As a result, the Law of conceiving all objects in themselves as beings identical to themselves, becomes fruitful, becomes the Principle of experimental knowledge. This concept has thus no need for schemes or other intermediaries, as Kant felt compelled to imagine: it applies very well without it to the data of experience. In the very cases where the absence of identity to itself cannot be found - at least without reflection, - this primitive Law will precisely be the Principle of a knowledge, an incorrect knowledge, it is true. And, that is precisely the

-379- case for our knowledge of external things, of bodies.

If we admit a primitive Law of knowledge, we must naturally also admit that the logical consequences it contains must act independently of any reflection by the subject and determine its conceptions. Such a Law acts in thought, as instinct in animals that makes them dispose and do things they have no experience and no knowledge of. Or, as the instinctive impulse can be thwarted by external obstacles or deceived by a resemblance, while experience has not yet instructed the animal, did not teach it to avoid the obstacle and distinguish things by their analogies, likewise, the effect of the Law of knowledge in the subject not yet reflexive can be modified and limited by other more complicated circumstances. The Principle of knowledge must precisely, as any Law of nature, accommodate itself with other Laws and share with them its field of action. We shall see what results obtain.

Let us admit as an innate Law, as a primitive need of the subject to conceive any object in itself, in its true being, as identical to itself, that is to say, as has been proved in Part One, as unconditioned and immutable. And, then, he becomes conscious of given sensations of color, sound, etc.

Let us also admit that the subject distinguishes of himself all these sensations as something foreign to him; this does not depend on very complicated conditions: this is the result of an immediate intuition, a primitive ability to distinguish in the content of his perception what is innate and what is foreign to it, an ability that would be impossible, as I have proved, to acquire, if he had it not from the beginning.

Or, if the subject could think from the beginning about the given objects and the exact manner of conceiving them, at the very first

-380- sight, he would arrive at this appreciation of the given content to which we can arrive today, but after centuries of philosophical tradition and at the price of a great application, namely that the objective sensations, colors, sounds, smells, tastes, tactile, muscular sensations, sensations of temperature, do not belong to the individual subject, to his true being, are really a "non-self", but do not correspond to our concept of the real, unconditioned essence of an object, that they should not be considered as real objects or substances outside of us, nor as qualities of such objects, but only as phenomena in us. The intelligence, originally, is by nature very far from minding the accuracy of its conceptions and of following with logical precision the consequences of its concepts. It is exercised rather unconsciously under the impression of internal or external determinations that affect it. Now, there are two unavoidable necessities that force themselves upon the subject from the beginning: 1. The need to recognize any object in itself, as identical to itself and consequently as existing of itself; 2. The need to know the given objects. The result of the simultaneous action of these two needs must obviously be that the subject immediately considers any given object, that is to say any sensation as a real object, existing of itself.

Thus, is the perception of the bodies constituted.

Most people who have reflected on the knowledge of the formation of bodies, believe that we know them by reasoning on the causes of our sensations. In fact, we cannot logically separate this belief of the assumption that the bodies exist outside of us; for, real bodies existing outside of us might not naturally be lost, and might at the most be concluded. But, I have already amply demonstrated that it is not so, that we do not know the world of bodies by a reasoning, that

-381- we immediately perceive them. Were it otherwise, the outside world would only be an abstract idea in us and not the essential object of our very experience. We have yet to see the reason for this.

Here is, in general terms, how we represent the manner how knowledge occurs: the subject recognizes, so they say, that something in himself, meaning the sensations of the so-called external senses (colors, sounds, flavors, etc.) is foreign to his individual, subjective being and, therefore, cannot have its *raison d'être* in him. He then

concludes, they again say, that these sensations have external causes. But, quite on the contrary, it is clear that the first consciousness excludes the second. The consciousness, precisely, that the sensations of the external senses (colors, sounds, etc.) are something that are foreign to us, does not allow the other consciousness to happen that these are effects in us or sensations in general. This latter consciousness is the consciousness of the Philosopher, not of the newborn infant, or the man who does not think. To admit something that is foreign to us is, however, in us and supposes reasons, external causes that explain its presence in us, we need an already very advanced thinking. Among those who do not think, who will assume that colors, tastes, smells, etc. are mere sensations in us and not qualities of external things? The knowledge of external things happens, on the contrary, precisely because the subject immediately recognizes in the contents of perception that is foreign to him (the content of his sensations) an alien world, that is to say objects different and independent from himself. We thus believe in our usual experience that we perceive external things, the so-called bodies. If, however, we had to first conclude external things, we would know absolutely nothing of them, as I have shown in Part One (p. 98 ff.).

-382- We thus see, I hope, that our perception of the bodies is determined by the Law of our thought, according to which we need to know any object as an object identical to itself, as a substance. A substance, as we know, is only an object that has its own being, not derived from without; how could the newborn child see that the objects of experience do not have a true being, are pure phenomena? Many Philosophers are themselves incapable of rising to this conception. The child also believes to know in the content of his objective sensations, which is foreign to him, not the effects of external substances but external substances, themselves (that is to say specifically different from himself). It is only in this way that our experimental knowledge of the bodies can be constituted. (1)

If, in the given, clear marks of non-identity appear, then the subject may not yet see the original incompatibility of the given objects with his concept of the essence of an object, because he cannot compare them consciously. Hence, will he not stop seeing and affirming the real given in itself, the substance; he, however, relates this affirmation to other elements, and this in the following manner.

There are two kinds of events in which can be seen in our experience a non-identity of the given objects: 1. The

(1) By this only can the subject represent the contents of his sensations in space. The hypothesis of Kant that the subject carries out through the innate form or the intuition of space his sensations, perceives them as bodies outside of himself, is obviously unsustainable; for, how could we represent our sensations as such in space? Space is certainly not the form of sensations in us, but the bodies out of us. The shape of space cannot be applied to sensations, that is to say sensations cannot be represented in space, unless we know them not as sensations, but as bodies. This knowledge must necessarily precede the idea of space and not proceed from it.

-383- changes of these objects, and 2. Their constant and simultaneous occurrence in specific groups, if this, in the eyes of the subject, is a sign of their mutual connection and makes him believe in their relationship. Now, the one and the other are found in the sensations. The ephemeral character of particular sensations united to the constancy of their coexistence in groups modifies in an unconscious way the conception of the subject, so that he takes, not the isolated sensations anymore, but their constant groups for real objects outside of himself.

The continued existence of a substance is the normal mode of existence of a thing identical to itself. The subject must, therefore, take for a substance that which is constant in his experience, and constancy is given in groups of sensations.

What I mean by constant groups is not, I hope, difficult to see. Any body can be perceived by all the senses, both seen and touched, tasted and felt. That means - since we cannot perceive but our sensations - that any sensation of sight is inextricably linked to some possible simultaneous sensations of touch, smell, etc.

If I see something, I know that the same can be touched, felt, and so the presence of a sensation of touch is the infallible sign that the sensations of sight and smell could be simultaneously produced, and so on and on. Our sensations thus form constant groups and these groups we take for bodies. Since the subject, as we have shown above, must necessarily know in objects, that is to say in sensations, substances, he conceives a group of sensations as a substance, as a body. As soon as he notices a link between his sensations of sight,

touch, taste, smell, the subject, therefore, believes that there is an external object that he alone tastes, sees and hears.

-384- The subject is thus naturally far from assuming in these groups an indefinable *substratum* different from sensations. He has no awareness of the difference between a thing and its many qualities. Only later comes the reflection analyzing this complex idea of a body, breaks it down into its elements and then does the illogical character of our knowledge of bodies manifest. Hence, must the scientific theory represent the bodies differently than they appear in the perception; and even the theory cannot, as we shall see in the next chapter, discover any concept of the body that is free from logical contradiction.

The illogical character is inseparable from our understanding of bodies. It consists, indeed, in that our sensations appear to us as something they are not in reality, namely as a world of substances in space.

The knowledge of bodies precisely offers a case in which the supreme Law of thought acts partly in the manner of a physical Law, and that because the subject is subject to the need to conceive the objects given in accordance with the Law of his thought. The Law of thought requires that we conceive each object in itself as identical to itself, as a substance. But, at his entry into life, the subject cannot come to the awareness that experience does not present us things as they are, that their empirical nature is abnormal. He is physically forced to take the given objects for substances. The assumption that experience must accord with the Law of our thought, which was made even by Philosophers and is unjustifiable on their part is, on the contrary, natural and inevitable to the knowing subject when he begins to think. And, by making this assumption, the subject is not entirely wrong. For, although the given objects (sensations) do not logically accord with the Law of our thought, since they are not things identical

-385- to themselves, real substances they are, though, complying with this Law, in fact. For, our sensations are naturally arranged so that we can actually recognize in them without inconsistency a world of bodies in space. This is where the empirical truth of this knowledge resides.

This arrangement of sensations is mainly manifested in the fact that they can give rise to the impression of something stable, immutable in experience, although they are themselves transient and changeable.

Our sensations come and go continuously. The slightest movement of my head or my eyes is enough to change my visual sensations, a movement of my hand to change my tactile impressions, etc. The bodies, however, as to their concept, are immutable and even the compounds, the aggregates of bodies, often have a stability that forms with the ephemeral nature of sensations a most striking contrast. Thus, the Alps, for example, the Gulf of Naples, the Great Pyramids of Egypt have remained virtually unchanged for thousands of years and have been seen by thousands of people and animals. Now, on the one hand, it is indisputable that we cannot know of or experiment with these objects anything but the sensations that correspond to them in the perception of the perceiver, and there is no doubt, on the other, that this correspondence would be impossible if our experience did not contain the conditions whereby anyone who can fulfill them always have the same perception of the Alps, the Gulf of Naples or the Pyramids of Egypt, something which obviously requires a particular, natural disposition of the content of the perception, that is to say of our sensations.

We shall examine in detail how the fundamental Law of our thought and the corresponding disposition of sensations produce the knowledge of bodies.

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§ 2. In-depth study of the fact of perception.

It is a recognized fact that the sensations of sight, touch, the muscular sensations which accompany the movements of our members and the victory over the resistance they encounter, constitute the material of our knowledge of the bodies. Reduced to hearing, smell and taste, we would have no knowledge of the bodies; so, we can leave these senses aside in our research on how this knowledge is formed. We must also see what qualities of sensations named first make them adequate to give the knowledge of the bodies.

The first quality consists in that these sensations are of a continuous and lasting nature (1). The sensations of touch never delay to reappear nor do those of sight, at least as long as there is light. These sensations can always reproduce the same and that in any order, for example, when we look at or touch one thing from left to right, right to left, top to bottom or *vice versa*. This results in an inner association and an easier and faster reproduction of their ideas, making them reappear

always together and simultaneously in consciousness and thus produce the belief that the corresponding objects are also persistent and simultaneous. This belief would never establish itself if, from the very beginning, we considered our sensations as sensations and states in us, as their simultaneity and diversity would be irreconcilable with the unity and identity of the self. It is only provided we regard our sensations as real objects, as substances, that their succession may appear to us

(1) This permanence is, however, not at all of the nature of a substance, it is not a manner of being immutable but a continuous reproduction. The sensations vanish and reappear at each moment.

-387- as a simultaneity. The only possible, intuitive sign of the non-identity of the phenomena to themselves and also of their way to be conditioned is, as we know, their transient and changing character. So, by contrast, permanence is the principal sign of the substantial existence, not phenomenal, of a substance as such. In accordance with our original disposition to take any object as such for a substance, which is durable in the given content, must appear to us as a real object or a plurality of such objects.

Now, the above-named quality of sensations of sight and touch leads to precisely this result. Thanks to it, the floating nature of these sensations is as masked and they lose their character of mere phenomena of consciousness.

That this quality resides in the said sensations themselves, and can be their objective basis, that is what one can become convinced of by a simple reflection. By touch and sight, I am not aware of a succession of sensations, unless I pay an express attention, I rather believe that in this succession persistent bodies are present.

The second quality of the sensations of sight and touch which enables them to let us know the bodies is that they allow a localization.

The other sensations cannot be distinguished from one another but from two points of view, the one of their quality and the other of their intensity. On the contrary, those of touch and sight are distinguished in addition from the point of view of the diversity of nerves to the excitement of which they are due. Two sounds that are similar in quality and intensity cannot be distinguished from each other. Similarly, two nerve fibers of smell or taste excited at once do

not give two different sensations, but only a more intense sensation. For these kinds of sensations, what looks alike mixes into an indistinguishable *complexus* and only the intensity increases

-388- in this mixture. If, instead, two senses of sight or touch are excited, the resulting sensations are distinguishable even when they are qualitatively similar.

If, for example, I touch with the finger two tips of needles, I distinguish two contact sensations although they are qualitatively similar. And, if I see a surface equally colored, the sensations that correspond to its various parts are not confounded, despite their qualitative unity, but they refer to different points of the field of vision.

In Germany, this quality of sensations of sight and touch is usually explained, according to the method of Lotze [Hermann Lotze (1817-1881),] with the hypothesis of local signs that distinguish the excitation of a nerve from that of another in the sensation. This hypothesis is not really an explanation, because we know nothing of the nature of these local signs. Moreover, as was rightly pointed out, it is impossible to understand how the space or place, as such, could produce a particular nervous excitation, or how a sensitive excitation could contain the indication of a specific location in space. Relations in space, such as location, direction, distance and the like cannot just be felt. Provisionally, we should just stick to the fact that the sensations of sight and touch can be distinguished even when they are of similar quality. The issue is simply, here, to know whether the ability to distinguish, even when they are identical in quality, is natural to the sensations of sight and touch or came to them by association during the experiment. Some English Psychologists are willing to admit the latter hypothesis, but it is clear that they are wrong. We must not confuse two things, here: the location of two similar sensations and their simple distinction. It would be purely arbitrary, it is true, to maintain that since the beginning of our lives we

-389- have been able to locate our sensations of sight and touch, according to body parts, for example to distinguish from the retina through which they come to us, or even simply to note that they come from some body parts, such as the retina in particular. But, obviously, it would be equally arbitrary to affirm that the excitation of different nerves of sight or touch gives sensations absolutely indistinguishable between them and that we learn to distinguish them by experience

alone, because no experience can discover or introduce a distinction in what is in itself absolutely indistinguishable.

The exact determination of the sensations of sight and touch, their ability to distinguish themselves even when they are of the same quality, lead to the same result as their persistence in consciousness and the ability to always reproduce them in the series we want, namely to know that these feelings, although successive, in reality, appear as something simultaneous. But, this result cannot be reached unless it meets the condition mentioned above, in a subject. It is, in effect, impossible to understand how the subject could distinguish sensations of the same quality if he took them for his own qualities or his own states; because local signs - of whatever kind - would then have to the subject no meaning. The subject cannot consider simultaneously his own states as such and, as a result, he can assign them no relation in space. On the contrary, if we admit that the subject is naturally disposed to recognize the data as objects, it is possible that he distinguish these data, that he use them and represent them as something simultaneous. By distinguishing the quality of the two sensations, the attention is naturally drawn to their qualitative difference and we are thus necessarily led, once the sensations are related to the same objects, to the consciousness of

-390- their succession. On the contrary, if I distinguish two sensations of the same quality, I can only conceive them as something simultaneous. A succession of qualitatively similar data cannot come primitively to consciousness. For, this consciousness, as we have shown above (p. **352**), is based on the contrast between the diversity of the successive data and the identity of the object to which they relate when we know them as being its states. With this ability to be distinguished, even when they are of the same quality, sensations become capable of serving for an intuition and a location in space.

By the qualities thus explained of the sensations of sight and touch the fact is made manifest that I have already mentioned, namely that these sensations are arranged or organized by nature so as to appear as a world of real objects in space. And this disposition or organization is very complicated and leads far. With only the qualities mentioned above, the impressions of sight and touch would not yet provide a material adequate to the knowledge of an external world independent of ourselves. For, the constancy of their manifestation in consciousness and the possibility to renew them at will in series, are

themselves conditioned. It is only while I see and touch the same object, on the same side, that I find the same sensations anew in the same series. On the contrary, as soon as my position changes *as regards* the object, I do not have the same impressions as before, but totally different. Naturally, too, I have entirely different sensations when I perceive another object. Then, three questions surge:

1. How can I recognize that I see and I touch the same object? 2. How to recognize that it is the same object that I saw and touched in similar circumstances? 3. How did I come to the conviction that the object seen and touched

-391- still exists when I do not see it and do not touch it anymore?

We can easily see what conditions are required for this knowledge on the part of the given objects, that is to say of sensations. There must be, obviously, a very regular connection between sensations, on the one hand, between the sensations of the same sense and, on the other, between those of touch and sight. Under the same specific circumstances, the same series of sensations must always occur and under these circumstances the series must also change according to a Law such as they may appear as modifications of external objects or of relations of such objects.

If I hold my pen, for example, before my eyes, I have determined series of sensations of sight from left to right and from right to left; I have at the same time determined sensations of contact of my fingers with the pen. If, now, I incline my pen, if I turn it, if I place it farther or closer, the sensations change, each time, as well as their series and their grouping but in such a way that I always perceive in them the same pen. These sensations are obviously bound by Laws that serve to take them for real objects. These Laws, therefore, put first in these sensations an element of constancy and without them there would be no possibility to know permanent external objects.

I have already explained the conditions that must in turn present themselves to the subject to make this knowledge possible. It is initially the disposition of the subject to recognize as a substance any object as such and, therefore, the sensations, or at least what is constant in them, as substances or as unconditioned objects; this is, then, the association of ideas which produces the belief in the relation of objects. But, the way of being and the Laws of this relation are what is

constant in the given objects; hence, the knowledge of real external objects must be attached to it. Indeed

-392- as soon as under the same circumstances we have still the same impressions of sight and touch and they always appear together when everything else changes, we believe this is the same object that we see and we touch. The awareness that even in changing impressions we still see the same object, rests primarily on the fact that change as such can be known only in relation to something that remains identical to itself and, hence, at the condition that we assume such an object. It also comes from the fact that the same series of changes, only reversed, brings me back impressions similar to those I had previously (for example, when I put myself again in circumstances where I have previously perceived the object in question); this is an experiment that we can renew at will and that repeats unwittingly an infinite number of times. Finally, the conviction that the object continues to exist when one perceives it no longer resides in the belief that it is a substance, that is to say an unconditioned thing, existing by itself.

Until now, to simplify the problem, I have said nothing of the muscular sensation resulting from the movement of our members and of the victory over resistance. We can well say that without the sensation of motion and resistance, our knowledge of an outside world would have a quite different character than it currently has, even assuming it were possible. I believe, it is true, I have proven that the subject has a natural disposition to consider his objective sensations as something that is foreign to himself and, at the same time, any object in itself as a substance and it is enough to lead to the knowledge of an outer world.

But, we must certainly admit that we are in any case dealing not with the content only, but with the energy of consciousness. In colors and sounds, for example, we

-393- can probably never recognize something that belongs to us, a part of our own inner being; but, the awareness of the foreign nature of these sounds and these colors has too little energy to found the affirmation of an outer, independent, world, the conviction that there is such a world. Through the only sensations of sight and touch, we would obtain, it is true, the consciousness of a world different from ourselves, but that consciousness would be like a dream and the world like the shadow of a world. There are in our experience only two elements that can give our consciousness of a non-self, of a world different from ourselves and the necessary energy, these are: 1. The

feeling of pain, and 2. the feeling of resistance. Pain and resistance, in fact, are not only foreign but also hostile to our being; as well as the consciousness that the reason for our pain and the feeling of resistance cannot reside within us, has an incomparably greater energy than the consciousness that colors and sounds have not their Principle in our own being. It is through pain, first, and resistance, second, that the real seriousness enters our life and our convictions; it is thereby only that the inflexible rigor of the Laws of nature are permanently imprinted in our minds.

I think I have to consider, here, the feeling of resistance only, because pain is a purely subjective state that forces us, indeed, to conclude to a cause outside of us, but gives no light on the nature of this cause. On the contrary, the feeling of resistance is objective, because we not only conclude with it to a cause unknown to us of the resistance, but because we have in it immediately present that which opposes us. Once an association has formed between feelings of resistance and impressions of sight and touch given at the same time, we believe that what we see

-394- and touch is precisely what resists our efforts (1).

External objects that we know in this manner are themselves nothing else than connections of visual, tactile or other impressions, and other sensations of resistance, which are disposed by such Laws that they can always, through any change in circumstances of perception, be recognized as identical objects.

We have already given evidence of it before. The objective nature of the feeling of effort is primarily based on the constancy of its production in consciousness. Almost at every touch of objects, we feel more or less the resistance they oppose to the limb with which they are associated. Hence, an indissoluble association establishes itself between the ideas of the impressions of touch and those of the feeling of resistance which, for the reasons stated above, makes us believe that the tangible and resistant are one and the same thing.

If we now add the muscular sensation that accompanies any non-resisted movement of our members, we have all the material necessary to form the knowledge of an outer world in space. At each position

(1) It is in resistance that the bodies oppose our will, that we are willing to see the main evidence of the reality of a world of bodies. And, indeed, the fundamental

concept of body is that of something extended and resistant. Only the slightest reflection shows that by so concluding to a reality of the bodies we let ourselves be deceived by a natural illusion. Bodies can oppose no resistance to our will for the simple reason that our will does not itself act on the bodies, has no power to move them. I will prove it in one of the following chapters. It is not the action of our will but that of our body which is hampered by the resistance of the other bodies and it is easy to see it if we think that the resistance of the same body is more or less easy to overcome by the strength of our muscles. A weight that a child, despite his best efforts, cannot move, will be removed almost effortlessly by a strong man. But, the effort of our muscles is accompanied by a feeling of effort and this feeling produces the illusion that the body resists our desire itself. This purely illusory resistance cannot be used to prove the existence of bodies outside of us.

-395- of any of our members corresponds a special muscular sensation, which may differ from all the others, though usually we have no consciousness of the difference of these sensations as such. Similarly, the change of position of the members (that is to say their movement) is accompanied by similar series of sensations in continuous succession. The constant experience of visual impressions that occur with certain muscular sensations in each position of the hand, for example, and changes in visual impressions linked with certain series of muscular sensations, leads through countless repetitions to understand intuitively, almost immediately, how the hand appears to every muscle sensation and how in another, and *vice versa*, what muscular sensation corresponds to such and such particular appearance of the hand or to such and such particular movement of the same organ. This knowledge is controlled and supplemented by the fact that we can touch with our other hand and our other members. Because, the union of the sensations of sight and muscular sensations that the hand made us feel and the union of these two kinds of sensations with those of touch, as is experienced with the various members. We are thus surely led to the localization of sensations.

But, of course, we have to represent us these sensations in space or project them into space before locating them.

I already explained the origin of the idea of space. Every unprejudiced thinker should today agree, I hope, that the spatial extent is not perceived in a passive way as sounds and colors and is not the result of data alone without a disposition of the subject. But, the opinion that the idea of space or things in space is concluded from the data is inaccurate and at odds with the facts. If this idea is not a passive

-396- perception, it is undoubtedly an immediate intuition.

We do not conclude from our sensations to external causes, but we project our sensations themselves in space, we have an intuition of them as extended objects. Things in space seem to be, it is true, something quite different from our sensations - and this is one of the reasons that makes it so difficult to admit that they are identical to themselves and that the world of bodies does not really exist outside of us; - but, this only comes from the fact that since the beginning of our lives and until reflection teaches us better, we know our sensations not as sensations in us, but as real objects. So, is added to the idea of our sensations an element completely foreign to them, but is so mixed up with them, thanks to the association, that it seems now to be one with them. We never noticed the presence in us of sensations; we have always perceived them as objects in space; so, it is not surprising that if we ever pay attention to our sensations as such, they seem quite different from what they appear to be in the ordinary experience. That colors and sounds cannot be qualities in themselves is already demonstrated in an indisputable manner and generally agreed: but, it will be said, how can the figure, the surface, the solidity of an object be identical to the impressions that we have of them, since they mean something other than these impressions?

Indeed, this is precisely the key to the mystery. Things in space and their qualities mean something other than the impressions in us, but are in fact not different.

Knowledge of things in space comes, in truth, from an explanation of impressions or sensations but this explanation does not consist in that we conclude from our sensations to their causes and in that we have the intuition of these

-397- in space - because concluded external causes could not be in any way the object of intuition - but that we are forced and, besides, accustomed to unite to our sensations affirmations that exceed what is really given in them, to consider them as something they actually are not.

The bodies are not the causes of our sensations but their essence precisely consists in the sensations. The bodies are only one way of representing sensations, as a manner for them to appear. What distinguishes in general bodies from sensations is their existence, their

extension in space. The fundamental concept of bodies is unquestionably that of something extended that resists.

But, sensations as such cannot be in space, have extension, precisely because they are not bodies. Hence, the intuition of space could never be derived solely from simple sensations and their relations. All the qualities of the bodies that are linked with their extent are not, in fact, of the nature of sensations and must let the bodies appear as something quite different from sensations. But, the extent could obviously not come from outside our knowledge, because nothing that comes from the outside can communicate with us but through our sensations.

The extension, therefore, is added to the sensations by some internal reason. The sensations appear to us as of bodies because, as a result of an internal Law, we are forced to recognize them as substances and to have an intuition of them in space.

I want to just add some clarifications on the origin of this appearance of the existence in space of the given objects. It was shown above under what conditions the successively given impressions appear as

-398- simultaneous objects. But, to the idea of their simultaneity, only the continuity of perception must be added to produce the intuition of an extension in space; because, we know, according to the fundamental Law of thought, all objects as substances and space is precisely the way of representing one next to the other a plurality of substances, not in the pure thought, not in abstract thinking, but in intuition. Now, we meet continuity, likewise, in the successions of sensations of sight and in muscular sensations accompanying the movements of our body. The sensations of sight, it is true, would not suffice alone to awaken an exact picture of the extension because a distance and an extension have no sense for us without the movement that is required to cover them. The visual impressions, alone, cannot, as we have seen, sustain the conviction of the existence of an independent, outer world. The muscular sensations of the movement in internal relation with the feeling of the resistance, following the association of the idea of this movement with that of the resistance (which essentially represents for us the outside, the independent in relation to us), are what leads to the awareness of the existence of this world in space. As soon as a plurality of simultaneously points of resistance is imprinted in consciousness, continuous successions of muscular sensations which accompany the movement of our hand from one point to another, and *vice versa*, lead to the idea of a distance

in space of the resistant points. And if the successions of the sensations of touch and of resistance are themselves continuous, as when we pass the hand from here to there over an object, then the idea is produced of a resistant object extended in space. If the way the actual points are juxtaposed and linked in continuity with one another is analog in space

-399- and in time, it is clear that a continuous succession should appear as a spatial extension, as soon as the parts are known as simultaneous. Thus, a flaming wand turned round with speed appears as a ring of fire. But, as to explain how the three dimensions and all the geometric properties of the extension occur in the intuition of space formed of given successions, there is only one thing to say, namely that this is possible only by a primitive Law or a primitive disposition of the subject. But, that this disposition be granted once and, then, it is easy to see which data may be used for the idea of length and width, and which other for the idea of the third dimension, for the appreciation of the distance. But, other authors have already amply exposed this.



Chapter 7

Scientific theories of bodies

§ I. Of the Essence of bodies in general.

If it is a fact that we know nothing else in bodies but our sensations, it inevitably follows that the concept of body must be contradictory because sensations are not actually bodies. This contradiction in our idea of bodies is the reason why we cannot satisfy ourselves with our usual experience and are forced to develop it in concepts. And, it is not only Philosophy that is constrained, but also Science.

This is why the scientific concept of bodies is different from the ordinary concept.

-400- It is impossible to eliminate altogether the contradiction of the concept of bodies for the reasons we have already given. Conceive the bodies as you will, this conception will always be contradictory. All we can hope by rectifying this concept is that it does not conflict with the facts too much. Our experience, our usual idea of bodies consists, as we have already seen, of two heterogeneous parts: there are, first, the sensations that form the true fabric, the only real fabric of perception; then, there is the affirmation related to the sensations or the groups of sensations, affirmation that these are substances and the intuition of these substances in space.

The union of these heterogeneous elements in experience is an obvious contradiction and the straightening of ordinary experience in the theory consists in that we suppress this union in the concept, in that we do not recognize the sensations as qualities of bodies and that we, finally, deny the perception of the bodies as such.

But, if the sensations are the only real content of our knowledge of the bodies, the idea of bodies separated from sensations is an empty idea. The scientific concept of bodies, therefore, is an empty abstraction, the idea of something that fills space and to which are attributed different forces. But, nobody has a positive idea either of the nature of what fills space or of its forces. In our ordinary experience, we say (and in the language of Metaphysicians) we postulate the groups of our sensations as real substances in space. The sensations

once eliminated, leaves the mere affirmation, which has no content, of substances in space and these are the bodies of Science.

The forces attributed to the bodies are also the abstract idea of a union, of a bond between our sensations and the affirmation which is now separated of these sensations as substances in space. The forces are simply powers that

-401- by hypothesis are attributed to the bodies of producing certain sensations in us and certain mutual changes which must be seen in light of changes and relations of the sensations themselves.

As the concept of body is an empty abstraction, as in reality there is neither space nor things in space, it is, from the philosophical point of view, irrelevant to further clarify this concept but, from the empirical point of view and for Science, it is not without interest that we form ourselves an idea of body, if not absolutely exact, at least relatively just. So, we will briefly examine the various theories proposed, to see which is the most accurate. There are altogether three different theories about the essential nature of body and we cannot imagine more.

1. For some thinkers, matter must fill all space continuously, without intervals and properly forms one body only.
2. According to others, the bodies have, instead, no extension; they are mere mathematical points, centers of forces.
3. The third theory, the most widely spread - and with good reason, as we shall see - is the atomistic theory according to which the last elements of matter, corporeal units, are extended, it is true, but so small that they are not perceptible and are separated by empty intervals [prevailing theory at the end of the 19th Century, in Europe, replaced by the *Quantum Theory* developed by Max Planck (1858-1947), Nobel Prize for 1918.]

All these theories are contradictory but the first two are incorrectly formed abstractions, while the latter – so far as the object is actually so formed - is a regularly formed abstraction from the experience of the facts and the idea of body.

The doctrine that the extension is fully seamless, without discontinuity, found an eminent advocate in Kant of whom I will say here just a few words. Kant stated his

-402- opinion in a special work: *Metaphysical Foundations of Science*. According to him, matter itself should be formed of two forces, attraction and repulsion; as a result of this conception, space is pure attraction and repulsion and is continuously full, without anything that attracts and repels, because everything in space must itself be a product of attraction and repulsion.

This theory, obviously, does not make sense and it is unnecessary to refute it. Instead, we must consider the reasons Kant had to conceive it. The first was a strange confusion that is already found in the *Critique of Pure Reason*, particularly in the so-called proof of the anticipation of perception. From the fact that all sensations have a certain degree of intensity that decreases or increases in a continuous manner, Kant concludes that experience can never let us conceive an empty space (*Crit., of pure R.*, p. 194-195). He confuses what he calls the matter of sensations, that is to say their content, with matter in space and transfers as a result the intensity of sensations to bodies that fill space. But, an intensity in the fact of filling space, that is to say an intensity of the extension is a contradiction. For, the essence of the extension or the extension consists in that everything is juxtaposed side by side and in such a manner that the different points are thought to be independent of one another; intensity, on the contrary, is a kind of penetration of the diverse, because plurality in an intensive magnitude does not support such a conception, *in extenso*.

So, to admit intensity of extension is a contradiction even worse than that of its continuity. It was, therefore, by a pure mistake that Kant blamed scholars for considering the real in space as "identical everywhere" and as different "in size only, that is to say in quantity" (p. 195). The experimental proof of this scientific theory

-403- is manifestly in the facts of gravity and conservation of force. Because, all bodies fall into the void with the same speed and it follows that the greater or lesser density of the bodies does not mean anything other than a greater or lesser accumulation of elements that are attracted to the earth with the same force or the same intensity. And likewise, the conservation of force is proportionate only to the mass, or the extensive element of the bodies, independently of their other qualities.

Now, if we reject the doctrine that matter can fill space with varying degrees of intensity by equal extensive quantities, that is to say with equal amounts of elements, we must also reject the affirmation that

matter fills space in a manner everywhere continuous (1), that experience can never allow us to admit an empty space. Any non-impaired movement of our limbs is the *de facto* evidence of an empty space. That the space in which our limbs move is not entirely empty, we cannot know immediately, but only by reasoning. And how things behave when we go farther? The distance of the moon and the sun is known experimentally; but, that there is something in space that separates us from these bodies is pure supposition, an assumption that has no starting point in experience, unless it is, maybe, the shortening of the orbit of the comet Enke, a weak starting point, because the other planets that move around the sun do not present

(1) In observing that a body can be divided into two parts that exist completely independent from each other, the simple intelligence, unbiased, understands that these fragments were from the beginning two independent bodies, which have been united by cohesion or by some other cause. It was only by mistake that we can reach such a surprising opinion that multiple and divisible bodies that we know are one continuous mass.

-404- a similar phenomena (1). Kant's arguments against this doctrine are quite strange. Already in the *Critique of Pure Reason*, in the antithesis of the first antinomy, he gives as valid proof of the infinity of the world in space, this reason that the world, if it were finite, would be related to empty space, "but such a relation, consequent to the limitation of the world by the void is nothing; the world is, therefore, not limited as to space, that is to say it is infinite in terms of the extension." (p. 363) (2). Kant has kept back, indeed, from wanting to prove by this argument that inside the world, as well, the void is impossible. But, in both cases, the argument has the same value or the same lack of value.

Indeed, these abstract considerations mean nothing against the fact that an empty space can be measured and observed as a magnitude. For those who believe in the reality of things in space, it is actually dangerous to admit an empty space. For such a space would be, as Kant rightly points out in "*The transcendental aesthetics*", a non-being, a really existing and measurable nothing. But, he who like Kant grants space no reality outside the subject's consciousness, makes no difficulty to admit an empty space, which is just a pure idea - and even, according to the remark of Kant, a necessary idea, of which we can abstract nothing and which, itself, is rather abstracted from all

things. This Philosopher was obviously wrong when he said:
 "Anything that

(1) And when it were proved – what, indeed, we will not deny - that the celestial space is full of some substance, we should not conclude against the existence of the void. For this filling of the celestial space is not necessarily continuous and without intervals.

(2) This Kantian proof of the *finiteness* of the world is the worthy counterpart of the proof given by Wolff [Christian, Freiherr von Wolff (1679-1754)] of the Principle of sufficient reason. This proof is known: If a thing had no reason, nothing would be its reason; nothing, therefore, would be related to a real thing and would thus be thought itself as something real, which is contradictory. Like Wolff, Kant made of nothing something real, and then triumphed over the contradiction that he had thus rendered inevitable.

-405- frees us of the need to resort to empty intervals is a real benefit to Science. For these intervals give way to the imagination which replaces with its fictions the intimate knowledge of nature." (*Elem. Met. Sc. of Nature*, 3rd ed., 1800, p. 78). On the contrary, dreamers are who preferably adopt the so-called dynamism of Kant, while atomism that admits empty intervals, is and remains the doctrine of positive Scientists.

The hypothesis of an empty space is not only legitimate, it is also necessary; because, movement is possible only in empty space. The movement is not something else, in fact, that the mutual change of position of things in space. That in which a body moves is *ipso facto* an empty space (1). Matter, by opposition to empty space is, however, synonymous with impenetrability. Whatever qualities may be attributed to matter, they lose all support and sense once we delete impenetrability.

The fundamental concept of matter is, as we have already shown, the affirmation of something that fills space. But, that a body fills space, does not mean anything other than the impossibility of conceiving in this space another body at the same time and I cannot evoke another idea. But, we do not want to stick to the finding of the impenetrability, we want to explain it and, hence, the mistake.

The impenetrability and other primary qualities of matter are not possible to explain, to make them understandable, because matter is not real and its concept is contradictory. We must simply observe them: otherwise we fall into a vain

(1) We cannot believe the contrary unless we hold a superficial idea of things. A fish, for example, moves in the water, but only because the water flows away to the right and left. The fish does not really move in the water, but in a vacuum. If the water were not moving, the fish could not move.

-406- Metaphysics, which has value neither for Science nor Philosophy. It is the more surprising that Kant did blame his opponents for that. The hypothesis of absolute impenetrability or, as he says, "mathematical", of the last parts of matter is, as he says, unacceptable because it would be a *qualitas occulta*: "If one asks why the material elements cannot penetrate one another in their movements, one must answer: because they are impenetrable." On the contrary, the explanation of impenetrability by a repulsive force must be freed from this reproach. "For, if this force, as of its possibility, cannot be explained further, if it is valued as fundamental force, it provides a concept of an acting cause and its Laws, according to which the action, that is to say the resistance in full space, can be assessed according to its degrees." (*Elem. met. sc. of nature*, p. 33). Kant obviously confuses here the repulsive force that manifests between bodies already constituted and of which we can empirically observe the Laws, with the repulsive force that must, according to his hypothesis, form from the beginning the bodies of which surely nobody as ever observed the action and discovered the Laws. The attractive and repulsive forces which, according to Kant, form the bodies, have precisely this disadvantage that they need to be explained, and they do not explain, however, anything; because they, on the contrary, need explanation, they are obscure *qualitates* of the worst kind and pure nonsense.

The above suffices, I hope, to demonstrate the falsity of the first of the theories that were proposed.

But, the second is just as false, the one according to which the primitive elements of matter are centers of force without any extension. I will not repeat that it is absurd to compose real things of forces, that is to say relations.

I simply ask: if the bodies consist of forces,

-407- what is there, then, that constitutes the material mass that serves as attachment point and is set in movement? Can a force be struck and moved from one place to another? Can the movement be the condition

of a force? But, the force like the speed is itself a quality of movement. A force that moves is similar to the pleasant walk of Hobbes who... walks. The hypothesis of non-extended centers of forces is not at all a way to understand the perceived bodies but pure fiction. Because, the perceived extension cannot consist in non extended centers of force; we cannot conceive them as elements of the bodies of our experience. A world of non extended centers of forces would be a particular world, hypothetical, next to the world consisting of extended bodies. I do not need to show that such an hypothesis has no meaning and no reason, after I have proved that our sensations themselves are what we see as a world of bodies in space and that the facts of perception, in general, do not allow us to conclude to a plurality of causes.

This theory of centers of forces provides a really curious example of how Physics, when it wants to raise itself to Metaphysics, is caught in its own nets and puts itself in the most obvious contradiction. What can there be, in fact, more contradictory that the theory which makes the bodies consists of mere centers of forces and the true theory of Physics that seeks to eliminate as much as possible force from the concept of body and to reduce all forces to simple movements of matter? The latter theory is only consistent with the true metaphysical doctrine that a substance, in its concept, is not a cause and can have no cause. It is also the only one in conformity with the true doctrine of knowledge, according to which the knowledge of bodies is conditioned,

-408- not by the empirical force concept (by a conclusion to a cause), - but by the metaphysical concept of substance - that is to say by the need to conceive any object in itself as an object identical to itself and consequently as a substance. – But, I shall return to it in the next chapter.

The directive point of view from which we must generally place ourselves to form and judge theories relative the bodies is this: if we draw a theory with the intention and confidence to find a metaphysical explanation of facts, this inevitably leads us to false results. For bodies are precisely not metaphysical objects, real substances and a metaphysical explanation of the facts is generally impossible. The real task here is quite different. We must start from the perception of the extended bodies not to search how it can be explained, but rather to look for what follows with logical necessity touching the essence of

bodies, from what has been perceived. With this process, no difference of opinion is to be expected and it is beyond doubt that the atomistic theory only is the accurate empirical theory of bodies. The actual divisibility of bodies, their force of expansion, their compressibility and other qualities based on their mobility, do not allow any other conclusion than this, namely that the world of bodies is an aggregate of discrete units or specific things separate from one another. If, now, the mathematical divisibility of the bodies is infinite, it follows that their physical divisibility actually has at every moment a limit. For, as far as the physical division can be pushed, it can never, however, because of the infinite divisibility of the extension, lead to something that is no more extensible. But, all that is physically divisible must be considered as already originally divided, for the separate pieces continue to exist after their

-409- division independently from one another, and they must therefore have been, from the beginning, bodies existing by themselves. One thing, strictly speaking, cannot be divided; this is only the case for an aggregate of things. Science, therefore, has the right to assume an absolute limit to the divisibility of bodies, howsoever distant that this limit is from the field of perception. In other words, science has the right to conceive the final elements of the bodies as absolutely indivisible units like atoms, the magnitude of which in comparison with what we can perceive is infinitely small (1).

The concept of an extended unit, of an atom, is indeed contradictory, too, and empty; but it should not be considered true unconditionally. The atomistic theory is, indeed, a scientific, not metaphysical theory: it claims only an empirical value but, under this condition, it is only correct. It does not try, in fact, to explain the nature of the bodies but is content to simply observe it.

So, we should not take the atomistic theory for a simple hypothesis; it is, on the contrary, formed with a logical necessity and legitimately abstracted from our experience of the bodies.

(1). We must not believe, however, that atoms are absolutely not noticeable. With the hypothesis of imperceptible elements we would lose the ground of experience to move in the metaphysical void. If the atoms were not noticeable, the bodies they form would not be more discernible and no longer be the bodies of our experience because you cannot perceive a whole without its parts, the whole is only the sum of its parts. Following the just remarks of

Leibnitz, we would not hear the sound of the sea, if we did not hear the sound of each wave. But, we do not hear separately the sound of each wave; it is only together that they affect our ear in a significant way. It is the same with atoms. Each of them contributes its small part to the perception of the whole, of the body. The perception of an ordinary body is only the result of all the atoms that make up the body. But, taken separately in itself an atom is not noticeable.

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§ 2. Of the qualities of bodies.

The world of bodies is, as we have seen, the affirmation of our own sensations or their groups as substances and the intuition of these substances in space. Neither the affirmation of substances nor their intuition in space is concluded; it is linked to the sensations, themselves, so that they appear to us as outside of us, as being in space; we see it with evidence for colors, for example. But, when we have observed the subjectivity of all sensations, nothing remains of the outside world, if not the affirmation of a something in the spatial forms and relations in which our sensations appear in the usual experience. This affirmation cannot, then, be in any other relationship with our sensations than as cause, that is to say that external things cannot be seen as the causes of our sensations and the relationships they have with one another. Now, we call force the unknown cause of any causal relationship. We must, therefore, assign forces to the bodies, as Principles of their causality in relation to our sensations as between them. It is, therefore, appropriate to distinguish in the bodies two kinds of qualities: primary qualities and secondary qualities.

To the primary qualities belongs whatever there is in the concept of an extended substance and also in the affirmation of something that fills a space; to the secondary qualities, conversely, all that can be attributed to it by experimental reason. The primary qualities are unique to the bodies as such, originally and independently of all relations; the secondary, on the contrary, are these qualities of the bodies resulting as much from their relation among themselves as with the knowing subject.

The first are certain *a priori*, the others are not

-411- known but by experience. Let us examine them more closely, both.

The following primary qualities are derived immediately from the idea of an object that fills space: impenetrability, form, position in space,

mobility, that is to say the possibility to switch this position for another, and inertia. As for inertia, it may seem dubious at first glance to deduce it immediately from the idea of something that fills space. But, we must remark that inertia has two different meanings. First, it means that no body can change its state by itself and that this requires an external cause. Taken in this sense, inertia is immediately deducible from the idea of the body as substance. I have, in fact, sufficiently shown that a substance cannot in itself be a cause, that is to say, it can never contain in its own being a reason to change because any change, any becoming is foreign to the true being of the thing or substance. But, under the name of inertia we still mean that a definite quantum of force is required to communicate a specific speed to a determined quantum of corporeal mass. This aspect of the inertia of the bodies cannot, in fact, be derived from their concept, because it has not its reason in the very essence of the bodies but in the necessity of a measure for the driving forces. But, this necessity once recognized, the Law of communication of motion can be deduced *a priori* from the concept of body, as I hope to prove in the next chapter. Inertia can, therefore, be considered this element in the bodies that is midway between the primary qualities and secondary qualities and which unites them together.

If there is no particular difficulty in conceiving the primary qualities of bodies because they can be deduced from the concept of body, it is not the same for secondary qualities.

-412- Here, indeed, the concept of force is added to the concept of body and it has always been very difficult to reconcile them. We already know the reason for this difficulty and we shall explain it with more developments still. A fairly common way to remedy this difficulty is to consider the bodies themselves as forces. Indeed, if we forget the *a priori* origin of the idea of body and consider the fact that bodies do reveal to us by their action and, as it is believed, by their forces, we would be easily led to see in the force the essence of the body. Let us examine this manner of thinking in more detail.

Since the time of Leibnitz, the doctrine has been spread that force had to constitute the essence of bodies. But, what is meant by a force? Do we mean thereby a real being which is something in itself, apart from its relations to something else? Obviously not because we give such an object the name of substance, not that of force. By force, we mean rather that quality in the object to stand in relation with other

things. The concept of force is inseparable from that of causality and, as a result, of the relation of cause and effect. (1)

(1) According to Leibnitz, the force of a substance or of a *monad* is its power to produce effects, not in other things, but only in itself. Leibnitz held as impossible a mutual action of *monads*. God only could act on the other *monads*. This doctrine contains a clear misunderstanding. A single thing cannot be both cause and effect because the causal relationship presupposes precisely the distinction between these two terms. To say that a thing can produce changes in itself is to say that in this thing changes occur without external causes, that in the same thing antecedents condition the consequents and are thus their cause. A substance whose essence consists in the force does not mean, then, anything other than a substance whose essence is in a perpetual flux, in a perpetual change. But, this is the opposite of the true essence, of the true concept of the substance, the manner of being of which, is rather an unchanging existence. Already in Part One, I have shown that the compounds only can change and that change is, on the contrary, foreign to a substance.

-413- If it were of the essence of things to be related to each other, substance and force would be inseparable; but, the concepts of force and substance would not be abstractions different from each other and separated. The truth is, on the contrary, that force or causality or relativity in general, far from being inseparable from the essence and the concept of substance, are rather directly contradictory to them. As can be very clearly shown about bodies, I shall prove it here.

Here are the reasons why an inner connection between bodies is absolutely inconceivable.

What unites two bodies together must obviously be in each one of them simultaneously. A body A cannot be bonded to a body B without, at the same time, B to be bonded to A, without their common link being thus simultaneously in one and in the other. But, as the bodies are surrounded by space on all sides, the space between them, it is obvious that what binds the two bodies and is simultaneously in both, necessarily fills also the space between them. For, from one body to another, there is absolutely no other road than the space between them. But, a link between bodies which is in the interval itself is also corporeal, extended, and thus purely external. Likewise, two cities are connected by a railroad or by telegraph. There is here, obviously, no inner power of a body that produces changes in another body, but it is, as we see, the only connection between bodies that has, generally, a

conceivable sense. Because, bodies, as we have already shown, have no interior and, therefore, cannot be linked together internally.

We may still make, it is true, this hypothesis that there exists between bodies a primitive relationship, a kind

-414- of preset harmony, in virtue of which changes in a body have resulted in other changes in another, without anything passing from one to the other or be contained in one and in the other as their common link. But, not to mention other difficulties that oppose this theory of Leibnitz, such an internal relation of bodies assumes at least a common origin of the bodies; but, the bodies can have no common origin, because, as substances, they have no beginning (see Part One, p. 91).

But, I must insist a little more on this last point. If the similarity or compliance in the manner of being of several things is based in good rule, on a common origin, we are also willing to consider the bodies themselves, because they have a common way of being, as related to one another to some extent. Indeed, we often speak of a "Matter" in the singular, as if all bodies were a single object or a single substance.

But, this is totally unacceptable. Otherwise, we could with equal amount of reason or more speak of a "Humanity" as a particular object, unique, because men have all the same essence. It is also difficult to understand how it happens that all bodies have in general a common nature - at least it is difficult only if one takes the bodies to be substances that really exist; it is, otherwise, very easy to explain, it is a necessary consequence of the given conditions, if taken as a point of view of the subject - but, we do not have to worry; because, the resemblance of nature of several substances is not contradictory to their concept.

It is quite another thing if we see in the conformity of nature of bodies a link and a sign of relationship between them, as a sign of their common origin. This way of seeing is

-415- in contradiction in the most formal manner with their concept. The bodies are completely independent of one another, have no internal connection; it is a truth implied in their concept as substances and proved to evidence in what we explained above.

We also know that it is completely contradictory to the concept of body, that they possess forces, that they act on other things and this view allows us to understand correctly the work of Science.

The concept of substances implies the absence of relations on their part or their independence of any relationship. But, since the regular connection of our sensations and their set order makes possible the knowledge of substances or corporeal materials, it is clear that these substances, precisely for the reason that conditions their knowledge, must appear as conceived in the various relationships .

The scientific theory, therefore, can never eliminate from its concept of body all relativity and must consequently always remain contradictory in its fundamental concepts. However, it can make progress, though, in the marked direction, and we actually see that all the efforts of Science tend toward this goal. The goal of Science, as we know, is to explain all the phenomena of the world of bodies by general Laws of mechanics, by shock and pressure, or, as they say, bring them to a mechanics of atoms. This means, in other words, that Science tends to conceive force as a quality not of the bodies but of the same movements, to resolve secondary qualities into primary ones or to derive them for the latter. Thus, it has already managed to make light, sound, heat and also electricity in part, and chemical affinity, not anymore according to the ancient doctrine, as qualities of bodies, but as changes of the movement itself, and gravitation appears to be an effect of the

-416- movement of atoms. If this goal were fully achieved, the relativity of the bodies and, thus, the contradiction contained in their notion would be reduced to the minimum implied by the Law of the communication of motion (1) which will be discussed in the next chapter.

Now, we can clarify everything that relates to the notion of bodies. Our ordinary knowledge of bodies, prior to any theory, is the knowledge of our sensations or their groups as substances in space, by reasons that were sufficiently developed above. In this effective, primitive knowledge, is not yet involved the distinction between primary qualities and secondary qualities of bodies. Color, temperature, odor, etc., still seem to belong properly to the bodies, such as extension, impenetrability and figure. But, although our sensations (as a result of their natural disposition we have already covered) actually agree with the conception that makes us consider them as corporeal substances, they do not, however, agree with it logically; because, actual bodies cannot be sensations or be constituted by sensations. Moreover, actual bodies cannot, in a general way, have any relation to a sentient being.

(1) But it is also evident that this goal cannot be achieved fully. The diversity of chemical substances cannot be explained by mechanical Laws. For, if it were accepted that the very nature of this or that body is bound to such a special kind of motion of its atoms, it should be recognized that such movement is inseparable from such substance and we would, then, return to the affirmation of a primitive qualitative specialty of substances. Never shall we be able to assimilate all the bodies of Chemistry to a primitive substance nor derive the generality of the given qualitative differences from purely quantitative differences, because that would be to make something from nothing. Moreover, it is clear that the phenomena of organic life cannot be explained solely by mechanical Laws, because they manifest an internal relation of the elements of bodies far exceeding the Law of the communication of motion. We shall discuss it as appropriate, later on.

-417- Therefore, the first step to make sense of things is necessarily to seek to determine the essence of bodies irrespective of their relation to the subject and to distinguish them from the manner they manifest to the perceiver. As a result, colors, smells, flavors and other qualities felt are no longer conceived as qualities of the bodies themselves, but as their effects on us and we grant the bodies only the power to produce them in us. Thus, the distinction is first made between primary qualities and secondary qualities of bodies. The primary qualities are in bodies independently of the subject, while secondary qualities, on the contrary, depend on their relationship with the subject.

But, there is still an unresolved issue: it is about the qualities of bodies one compared to another. The question is whether or not it belongs to the physical essence of a body to be connected with another body. If the answer is affirmative, forces are attributed to bodies, namely the power to produce changes in other bodies in accordance with certain Laws.

Thus, were powers of the bodies once understood under the name of natural forces. But, this conception is in contradiction with the idea of body; so, we see that Science has sought to reduce the forces to changes of the movement.

But, Science cannot, as we have seen, entirely succeed in this task. And, even if successful there, it would still remain in the scientific concept of bodies something inexplicable, a *qualitas occulta* or, more exactly, a contradiction. For, even the mechanical action, by shock and pressure, as I shall show in the next chapter, suppose between bodies relations, a mutual provision that contradicts their

concept. Only this contradiction, in the mechanical action, does not fall under our sight as in their action at a distance and, consequently, little impacts the average intelligence.



Chapter 8

Of Motion

We have often found that the essence of motion contains something incomprehensible or, more accurately, contradictions. The movement is the state of a body, and the body, by its concept, as a substance, is independent of anything else. The motion of a body should, therefore, involve no relation of the body with others. But, the most superficial observation shows that the movement in its essence is necessarily relative, an isolated body cannot be seen as moving; it takes the presence of several bodies to determine the relative positions they occupy successively in space, so that basically we cannot define movement other than to say: a change in the relative positions of things in space. This relativity is even more obvious and more important if we consider, as we will, the Laws of motion.

An internal tendency to movement cannot be deduced from the concept of body; it would rather be contradictory to the concept. Hence, the tendency of Science to consider any movement simply as fact, a state of bodies, of which we should not seek the first origin. As a result, the cause of a movement can be another movement, and so on *ad infinitum*; the force (the cause of the movement in general) is, therefore, not a quality of the bodies, but of the movements themselves. Consequently, Science seeks to explain everything mechanically. For, it is the characteristic of mechanical Laws to assume any movement to be a phenomenon in itself, indifferent to the bodies, as only transmitted from the

-419-outside, as a state that has not its reason in the essence of the body moved. In accordance with the Laws of mechanics, no body can move by itself, none can take by itself any determined direction with any given speed. All movements, all directions, all speeds are things indifferent to it. If a body is at rest or moves, and if, in the latter case, it moves to the left or right with a particular speed, it only depends on external influences and mechanical Laws to simply mark the way and the extent to which these influences occur and spread.

The first mechanical Law of motion is, as we know, that a body moving indefinitely retains the same motion in the same direction.

This Law derives from the concept of body as substance. Because, a substance can never be a cause in itself nor produce any change of its own states.

The second Law of motion is rather the Law of the communication of motion and consists in the fact that when a non elastic body in motion strikes another body at rest, the two bodies move in the same direction with a speed that is in relation to the earlier speed of the first body as the mass of the body to the mass of the two bodies taken together.

The body that strikes should, according to this Law, lose some of its movement as much as the other gains. This Law can be expressed thus: in any communication of movement action and reaction are equal.

This Law implies two things: 1. That the movement can pass from one body to another, 2. That this passage is in such a ratio that the mass of the bodies is used to measure the driving force. Neither one nor the other of these two facts can be deduced from the concept of body.

-420- That a struck body should move in the direction of the impact, we cannot see *a priori* (1). This fact seems self-evident only because experience has familiarized us with it. Hume rightly said about it: "When I see a billiard ball heading against another, the thought may well come to me that the movement of the second is the consequence of the shock or contact; but, could not I suppose hundred other effects of that cause? Could not the two balls both stop? Could not the first ball go back or take any direction beside the second? Are not all these assumptions possible and conceivable? Why prefer one to the other when they are all possible and conceivable? All our *a priori* reasons will never give us any motive to decide for this or that effect "(IVth *Essay on Human Und.*) Without the experience of this fact, we could never conceive that the state of a thing can detach itself from this thing and move to another. Simply try to imagine a similar transfer of state in another area, for example the passage of feelings and ideas of one man to another: the inconceivability of this phenomenon will appear clearly. A man may, indeed, communicate his feelings and ideas to others: but, this communication resides in that it awakens in those feelings and ideas that are similar to his, not in that he carries his own ideas into them. The communication of motion proves that the movement is not a state of the bodies, founded in their essence, but indeed something outside of themselves. The movement thus leaves inside of body atoms - so far at least as we

(1) What is certain *a priori*, is only that a change must be followed by another change. But, what this latter change will be the former does not indicate *a priori*.

-421- can speak here of interior - at rest and without change.

The second fact implied in the communication of motion, namely that the mass of the bodies serves to measure the driving force, can still less be deduced from the concept of body considered as something filling space. *A priori*, it is not clear why a force that produces the speed p of a mass A , does not produce for a mass $m A$ the same speed, while the latter is actually only $= v/m$.

This determination of the Law cannot be deduced from any quality of the body nor from its mobility or its inertia. The first only means that a body can be moved and the second that it cannot of itself, without an external cause, move from rest to motion or from movement to rest; but, none of these qualities contain any measure on which the phenomenon can hinge. On the contrary, the existence of a fixed Law, of a general Law of communication of motion in the bodies, shows an internal disposition in the bodies from the ones towards the others which completely contradicts their concept, as we have shown. Let us only remember the facts of experience. If a body A of mass 1 and velocity V strikes a body B of mass 2, the invariable result is that both bodies move in the direction of the impact with a speed $v/3$. Is there not here in A an obvious relation to the mass of B , and in B a relation to the mass and velocity of A ? Otherwise, why would the movement of A , after the shock, fall in a proportion determined by the mass of B ? And why would B , after the shock, acquire a speed which is at a fixed ratio with the mass and velocity of A ? With the simple concept of a body we would the lesser be in a position to predict the phenomenon, that the phenomenon is in contradiction with the concept. The very reason that makes incomprehensible the action of bodies, at a distance, *i.e.* their independence, their non-relativity, as substances, makes

-422- incomprehensible their action by shock and pressure. But, as the space which only separates bodies makes manifest the impossibility of an internal connection of these bodies, we have many thinkers who consider impossible the action at a distance and who make no objection to the communication of movements according to mechanical Laws. And, yet, there is in fact no essential difference between the two cases.

They are as much unintelligible one than the other.

If it is accepted once that the mass of the moved body provides a measure for the driving force, a force ten times greater is required to communicate the same speed to a mass ten times larger, then the Law of the communication of motion can be known and deduced *a priori*.

The concept of body makes it possible to consider, from the point of view of the movement, two bodies as one body after impact and we can then easily see in what relation to the movement that precedes the shock the movement that follows finds itself. If a body A of mass 1 and speed V strikes another body B at rest of a mass $m-1$, together they form, after the shock, a mass $= m$. If, then, we considered them as one body on which an action is made on impact by the force which first put A in motion, it is clear that the speed of the two bodies after the impact must be decreased exactly in the same proportion as the mass of A and B taken together outweighs the mass of A because the same force that sent the body mass at a speed V cannot give the body A + B of mass m a speed other than $= V / m$. That the body A has been set in motion first instead of A + B, changes nothing to the case, because the movement of A until its encounter with B, in virtue of the particular inertia of the bodies, cannot from any point of view condition any change of the facts. Naturally, we only consider here the communication of movements between

-423- simple atoms, which should be regarded as perfectly inelastic and impenetrable. We have to study here neither the masses nor their movements.

So, this is the direction in which the Law of the communication of motion can be known *a priori*. We cannot deduce it *a priori* from the concept of the body but, indeed, from the necessity of a measure for the driving force.

The inertia of the bodies is not, therefore, in their concept but makes manifest a particular disposition of their essence with respect to each other. Taking inertia for a true quality of the bodies leads to the absurd doctrine that inertia, that is to say the absence of force is itself a force. We often speak without thinking of an "inertia force", according to which a body "resists" the movement. But, inertia is obviously a *contradictio in adjecto*. If bodies are inert, the force is not in the bodies, but only in their movements. The resistance that a body opposes to movement is not the result of a "force" special in it, but

follows the natural disposition which makes the mass of bodies to serve as measure of the driving forces. This natural disposition, this reciprocal organization of the bodies is so far from being based on the essence of bodies themselves that it is rather contradictory to their concept, as we have already shown. (1) The movement thus appears as a state that is both proper to and foreign to the bodies. A body in movement differs positively from a body at rest because it can produce effects that the other cannot produce. But, the cause that produces these effects, the force that manifests itself in the movement and speed, does not belong to the body in motion; it is a

(1) One who is willing to look into the nature of final causes can already see in this organization the proof of a general purpose embracing indiscriminately and without exception all the bodies.

-424- function, a moment of the movement itself. Because, the effect produced by this cause consists precisely in that a part of the movement and strength that is in it, passes during the shock, from the body moved to another. The essence of the body intervenes as a condition only indirectly and, indeed, in this only that the mass serves as measure of the force.

Because, the force is a function of the movement itself and not something peculiar to the body, it follows as a consequence that no force can be born or perish. The bodies, by virtue of their constitutive inertia, can develop no new energy or destroy anything of the already existing. The movement can take different forms passing from one mass to another but the quantum of its energy remains always identical. It was discovered by experience in modern times, and this is what is called the Law of conservation of force. The proper meaning of this Law is that the becoming, the change, has no cause, no beginning, but remains eternally of its own impulse. In Part One (Book One, Chapter 1), I amply demonstrated that this theory is certain *a priori* and will return to it again soon. But, this is the place to take a last look at the meaning and foundation of scientific theories.

Scientific Atomism has over all other doctrines the advantage of tying not with dreams but with what is actually perceived. Hence, this theory is the only exact as a physical doctrine. But, what are bodies according to scientific theories? Atoms without qualities, things without a real nature, whose whole essence is in their extension. If bodies do not have real qualities, no qualities can originate in their essence; the only

possible becoming for bodies is movement, that is to say the change of their respective positions within

-425- space. Science, therefore, conceives all phenomena in nature as mere movements. But, if the bodies are separated on all sides by space and have no interior, they can hold each other in no internal connection and may act on each other in no way except a purely external manner, that is to say by shock and pressure. This fact has yet another reason, namely that all becoming is foreign to the essence of bodies as substances and, therefore, they cannot be causes in themselves. Bodies must thus be conceived as inert things for which, *per se*, all movements are indifferent, receiving in themselves all the movements and forces (speed) that reside in them, losing them (transmitting) without participating in them internally. However, the mechanical Laws are the only ones that have any value in the event of a perfect inertia of bodies. But, the mechanical Laws alone suppose no strength, no internal power in the bodies, but agree, as we have seen, with the hypothesis that, for the bodies, all the movements, all the forces and all speeds are in themselves indifferent. So, we see scientific theories tending not only to consider all the phenomena of nature as simple movements, but also to see in all movements simple effects of mechanical Laws. It all comes down to a mechanics of atoms. Science approaches even more to its achievement that it is more successful in this task.

Now, we see to what necessity, of which they are not always conscious, Scientists obey in the construction of their theories and the most biased of men may not ignore now that scientific theories have only to do with an ideal thing. Even the ones who would remain deaf and blind to all proofs previously presented

-426- should now finally wake up as from a dream and get to the conclusion that we cannot, if one is awake, take atoms without force and without qualities, an empty abstraction and even ultimately contradictory for something that actually exists and believe that the infinite diversity of natural phenomena really is nothing else than movements, that is to say simple changes of position of the atoms without forces and without qualities in space.

Finally, we must conceive that the whole experimental reality lies only in ourselves and in our sensations and that the world of bodies is just the way we project into space, as a world of external substances to

perceive, the content of our sensations in accordance with the overwhelming reasons given above.



Chapter 9

Force and Law

Already in a chapter of Part One, I dealt at length with cause and causality. I want to return to this subject and first briefly repeat what I have already stated.

In accordance with the concept that we have *a priori* of the true, unconditional being of objects, of the real in itself, any real object in itself is perfectly identical to itself. Yet, "identity to oneself" and "change" are disparate determinations and can, therefore, belong to the same object from the same point of view. Likewise, with the concept *a priori*, any change is, therefore, foreign to the essence of things or the real, hence, is conditioned. This conclusion implies two extremely important Principles:

-427- 1. Everything that happens, any change taken in particular, must, without exception, have conditions, causes, that is to say invariable antecedents.

2. But, should something happen in general, should changes occur in general, this can have neither cause nor condition.

From the fact that all becoming and all changes are foreign to the essence of things in themselves and thus cannot be derived from it, it follows that a first, unconditioned cause of the becoming or change is absolutely inconceivable. The condition of a conditioned is always conditioned itself, the cause of a change is itself still another change, that is to say that there are no other causes than physical causes, and that a metaphysical cause, consequently, is impossible. We must, therefore, consider the becoming in general simply as a given state of reality that persists by its own momentum, and we do not have to ask ourselves what is its prime origin but, rather, give up any attempt to derive this state from the unconditioned, from the essence of things in themselves. If something happens now, the cause resides in that something happened before.

The cause behind some determined change happening now lies in that another determined change occurred before which the current change replaces according to an immutable Law. In a word, all causality is a moment, a function of the becoming itself. To believe that we can, outside the Laws of phenomena, still know some causes, no matter

which, is absolutely unreasonable and to look for causes that are not subject to the Laws of the phenomenal world, is a vain enterprise that cannot have but chimeric results.

From this point of view, already, we can understand what is a force and what is meant by that word.

-428- By the word force, is meant the selfsame acting and productive Principle of the becoming. We are, therefore, prepared to see in force the cause of becoming. But, this is an untenable opinion. The active Principle is not something different from the becoming itself, is not separate from it; it is rather the very permanence of the general vicissitude whose inner impulse is always maintained.

Here are, on this point, new clarifications. Of the Principle of causality: no change without a cause is necessarily inferred, as I have shown in Part One (Book Three, Chapter 1); the Principle that the relation of cause and effect can accept no change, that all causes, therefore, are related to their effects by invariable Laws. The cause thus presupposes an effect, just like the effect implies a cause, that is to say that, in accordance with the Law of causality, a change cannot occur without another change, of which it is regularly the consequence, having occurred before, but a change cannot occur without another change following and always the same in the same circumstances. Under the Law of causality, all change not only produces an effect but with the same necessity produces a cause of subsequent changes. The Law of causality not only establishes that there is no beginning but there is no number one to the series of changes. This shows that the Principle of changes is in their own essence, in their permanence and not in what would be, not a change, not a becoming, but an object.

If one believes that something different from a becoming, an object, a thing in itself, can be a cause, contain in its own being the reason of the changes within itself and other things, one is crediting it with a force as an individual quality that then constitutes in the essence of things this element

-429- to which belongs this causality. But, the hypothesis of such force contradicts not only the concept *a priori* but the whole experience.

The reasons *a priori* that make inconceivable the hypothesis of a first cause and consequently of a force innate to individual things in themselves, I have already amply exposed in Part One, and I think I

have proved this impossibility for bodies in particular, in the last chapter. And, this view, imposed upon us by the *a priori* reasons, is confirmed by the whole experience. Hume already and Th. Brown showed that the hypothesis of a force in individual things, a power to produce effects is devoid of any experimental foundation.

Firstly, indeed, if an individual object, in itself, were cause, if it had in its own being the power to produce effects, one could conclude from its own being what effects it would produce. But, Hume and Th. Brown have showed most clearly and decisively that we cannot conclude from the nature of any known object why it produces such effects and not others. We cannot know the effects of a cause other than by experience, by the fact that some effects always follow some antecedents. Of causality we do not know anything other than an immutability, a uniformity, a regularity in the successions of phenomena. The why of the causality of a cause is not in its individual being but in an element that binds it with its effects. This is also the meaning of the general Law of causality, that all causes are related to their effects according to general and immutable Laws.

Moreover, if an object had in its being a reason of changes, if it were cause in itself or possessed forces, it would thus be an inexhaustible source of new changes. And, since any change possesses itself, in

-430- consequence of the Law of causality, a force, that is to say it is necessarily the starting point of an indefinite series of successive subsequent changes, the sum of the changes and the forces would be indefinitely multiplied by this supposed thing.

But, this contradicts the Law of conservation of force, that no new force can occur and the quantum of energy existing in reality still remains the same.

So, we see that the force, the active Principle of becoming in compliance with both the concept *a priori* and experience, cannot be the quality of individual things and, in general, cannot be individual. It is, therefore, a moment, a function of the becoming itself and it merges with the universal link connecting to each other successive phenomena, and constitutes the internal connection. We see it, in the clearest manner possible, in the simplest case of becoming, in the movement. The cause of a movement is always a previous movement and the active Principle of motion, its force is in itself, in its speed. Causality of the movement consists in its transition from a body mass

to another according to Laws whose reason is in the essence of the movement itself, to the determination of which the bodies in movement take part, as we have said, only indirectly.

As soon as we made once this observation, we clearly see that we can know a force only by induction. The theory that we, the willing subjects, possess an immanent force, a power able to produce effects outside of us and that we can perceive it immediately as a force, is pure imagination. Hume already (*Essays on Human Under.* VII, 1) and Stuart Mill (*Log.*, Chap. On the Law of causality, § 9) have disproved this theory. And, in fact, whether we consider ourselves a

-431- substance, an unconditioned being or just a product of conditions, in any case we cannot have a force our own, a power to move the bodies. For, if we were, as to our essence, an independent substance, then our being would have no connection with the world of bodies outside of us and could have no power to move them. Or, if, by some miracle, we had that power, we could act indiscriminately on all bodies in the same way, while experience, however, shows that we can only act on our individual body only, especially arranged for this. The hypothesis of our substantiality must, therefore, be rejected for this same reason. But, if we are merely the products of conditions - as is actually the case - it cannot be a matter of an unconditioned power to move bodies or, in general, to produce effects. It is obvious that we do not have an individual force, that we are not causes.

Furthermore, it is clear that if we were ourselves causes, we would perceive ourselves immediately in our causality. Now, we obviously act upon our motor nerves only, immediately, not upon our muscles, much less on other body parts. If we could see ourselves as causes, we would also perceive the manner our will moves and affects the motor nerves. We know enough how this is not the case. We are so far from knowing how we act on the nerves and, through them, on the muscles, that we never even think of a similar action. What we seek to produce is always a determined movement of our members for any given purpose. I want, for example, to write these words on paper and I make the movements that I know from experience are helpful for this purpose. But, of how I act on the nerves for this and of the effect

-432- of the nerves on the muscles, I have no idea at all and I would be unable to act on the nerves or muscles without reference to an outside purpose.

Our will does not, therefore, possess a force and we cannot locate one in it. The effort we make for such a force is a state not of our mind, but of our organism. The feeling that accompanies the effort of the muscles should not be confused with the effort itself, but is its reaction on the inner state of the subject. Just as it always accompanies muscular effort, the combination of the one and the other in consciousness leads to believe that the feeling in question is the same effort and immediately manifests inner strength of will. But, this is a mistake. We cannot conclude the causality of our will but from the facts, namely that the desired movements of our members invariably follow our desires. The force and the causality of other things is known to us in exactly the same manner. Experience shows us, for example, that all non-supported bodies fall to the earth. But, as the lack of support is a purely negative condition, we must assume that the positive condition, the positive result of the fall is in the body and the earth that is the central point of their fall. We call force this positive reason and this is the force called gravity.

Experience also makes us see that a body impacted is set in motion and the movement of this body has determined certain relationship with the movement of the previous impacting body; one must conclude that this movement is the cause of the other and that there is a driving force in it.

We can indeed compare the forces manifested by external things with those we exert ourselves, like, for example, when we take bodies of different weights in our hand and we observe the difference

-433- of the necessary efforts to prevent them from falling or when we hit a body and we compare the effect with the shock that would produce another moving body. The forces generated by our body are actually, in essence, similar to the other forces of nature. As Science has established, it is the physical and chemical forces of the elements that are used in the formation and maintenance of our organism. Our will does not produce these forces but only gives their activity a certain direction.

The movement of our members has as constant antecedent a certain muscle condition called effort and is always accompanied in us by a feeling. On the one hand, the association in consciousness between effort and the feeling that accompanies it suggests that effort is one of our inner states and is one with the feeling that accompanies it; but, on the other hand, the identity observed between the forces developed by

our organism and the other forces of nature also leads us to grant the soulless bodies the feeling that accompanies us in the exercise of force, that is to say the effort of the muscles and, consequently, to consider not only the will as a force but all forces as will. This point of view so natural to children, to immature men and so familiar, some Philosophers themselves have, in our time, as we know, made it fashionable again.

In reality, we, the willing subjects, possess not an ounce more of individual force than any other thing outside of us. Our inner states are causes and effects in the same sense as the states of inanimate things, that is to say they are the invariable antecedents of other effects, and the invariable effects of other antecedents. Our own causality is, like that of inanimate things, conditioned by the general binding of nature which is the base and the nerve of all causality.

-434- If we call force the general binding of things, (1) the Law is the manner this connection is manifested in the observed relations of things. Because, the binding of various things can never be perceived itself, there is only one way for it to manifest itself in the perception and it is that the things in question are always met in reciprocity with each other. A Law is, therefore, nothing but an immutability of coexistence or succession of phenomena. The simultaneous, invariable production of certain facts gives us the proof that they are related. The same induction, therefore, which leads to the observation of Laws leads to the hypothesis of the forces that occur in them. If we do this reasoning: phenomena of some kind in our present experience are always present together, so they will continue to be associated - what do we mean by that? We obviously affirm that these phenomena are related to each other and, therefore, we raise the experimentally observed uniformity of their appearance to an unchanging uniformity, in other words, we make it a Law of nature.

There is now a necessary remark to clarify what we must understand by the force, the acting and binding Principle of nature.

Among the causes of errors (fallacies) of which Stuart Mill speaks, (1) one usually understands by force, not what binds generally the various phenomena but only what binds successive phenomena, which is the acting Principle of their succession. One does not call force a bond as it were static, that is to say the bond of simultaneous phenomena. Nobody, for example, would say that the connection between the color, weight and flavor of a body is a force or is produced

by a force. But, once the Principle that binds the simultaneous and successive phenomena is the same, and it does not matter to us here to bring out the differences in the essence of this Principle, but to characterize its nature in general, it seems to me proper and legitimate to call it force as long as a more general denomination is not proposed.

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(1) In the second volume of his *logic*, he cites the confusion of two meanings of the word 'same'. By this word we also designate the numerical identity of a thing and the perfect similarity or unity of several things. Mill, then, criticizes Berkeley for having taken as numerically identical a sensation of today and one of yesterday that are essentially quite similar (*Log.*, II, p. 394). According to Mill, the very same sensation cannot happen twice; each sensation is always something absolutely new, although they may be perfectly similar to each other. But, it is questionable. I have shown in a previous chapter that the objective sensations, colors, sounds, smells, etc., cannot be considered as accidents of the self in the same sense that the round figure of a soap bubble is an accident of the substance that constitutes this bubble.

Our sensations offer us a real content. From this point of view, there are only two possible hypotheses: either this content of sensations emerges at every moment from nothingness, or it always exists, even though it is not in the field of perceptible reality and, then, of course, the content numerically the same of the perception may occur at different times in our consciousness. But, the hypothesis that this content is born of nothing, at every moment, is absolutely unacceptable, because all our sensations are in a constant mutual connection according to immutable Laws. The other hypothesis is not only accurate, contrary to Mill's opinion, but it is the only admissible. However, Mill himself teaches that the possibilities of sensations are permanent and common to all men. Now, what can be understood by 'possibilities of sensation' if it is not either a cause of these sensations or the presence of the content of perceptions themselves in another kind of non-perceptible existence? But Mill did not want to consider the bodies that are, according to his

-436- definition possibilities of sensations as causes of sensations, that is to say as real external things - and in this he was absolutely right. He, therefore, to be logical, had to understand by possibilities of sensation a manner of being of the selfsame content as perceptions.

This is also the meaning that the words possibility, power and other similar may have. By possibility one generally conceives something different from reality, that contains nonetheless the basis of reality. But, it is by a confusion of the concept that thus forms that we take the given and known reality for the reality *par excellence*. Everything that exists in any way is real *ipso facto*.

Under the "possibility" of a real content, we, therefore, cannot mean anything but a real existence of this content but of a different kind of manner to be seen and known.

The same given content that appears in our perception as divided into a plurality of individual phenomena, exists outside of perception in a mutual combination of the diverse and remains, even when it is perceived, in its original binding, on the opposite side of the perception. This connection can manifest in the perception only in an indirect way, *i.e.* by the uniformity and regularity in the succession and coexistence of the actual elements received. This hidden existence of the perceived content is the "possibility", the "power", from where it passes into the "reality" known to us and given in our perception, then returns to the first, and this passage is repeated constantly according to invariable Laws.

Hence, we see here how it would be wrong to represent the active Principle, the binder, of nature as something individual. This Principle is rather the multiple world of the given phenomena taken from another side of its being, where the multiple, that which is given separately in perception is linked.

So we have here the true "Mother Nature" from whose fecund breast **-437-** issue the multitude of given phenomena and in the stead of which we vainly try to place inert and qualityless matter. In any case, if one believes in the real existence of the bodies one must mean by nature, first of all, the matter of the bodies. But, an internal connection between the bodies is, as we have seen, inconceivable; the hypothesis of forces as qualities of the individual bodies, is contradictory. So, we see that human consciousness has never been content with matter alone, has never been able to suppose in it the sufficient reason of the given phenomena.

We have always been forced to explain by a single Principle the vicissitudes and the sequence of events. And, as uncritical thinking has a habit of moving only in Absolute positions, we have always

considered the supposed Principle of change and the sequence of events as the unconditioned. Thus, the theistic and cosmological theories have occurred. And, this confusion of the acting Principle of nature for the unconditioned is the biggest mistake that men have ever committed.

Another fact helped strengthen this confusion, a fact the study of which is of great interest. I mean the obvious purpose that nature presents, the resemblance we observe between some of its effects and the conscious actions of man. We will devote to the study of this the next chapter entirely.



Chapter 10

Teleological considerations

§ I. Of the external purpose of nature.

Kant has already noticed that finality *in* nature must be absolutely distinguished from the finality *of* nature itself,

-438- taken as a whole. The hypothesis of the first, generally, has an empirical basis, *i.e.* the resemblance between certain phenomena, certain effects of nature and the products of human activity. On the contrary, the reason for admitting a goal that nature of itself has is essentially metaphysical.

We tend to posit ourselves the problem of a finality of the whole world, because the becoming, in general, is a state of affairs that is not sufficient of itself and whose limitation is affirmed by the very necessity of change.

A change can never come from the normal state of things, their *per se* in itself; all changes are perfectly foreign to it.

This is why a first cause of changes is inconceivable and why we must conceive a regression of causes to infinity. But, it also follows that the becoming can never be an end in itself and that its end - as far as we can speak of such a purpose - must be outside of it; because, change is a symptom of a condition which cannot remain as it is, that has a tendency to change into another. The direction of this trend, showing the goal or the end of becoming, therefore, runs towards various other states, that is to say to states that have no reason to change yet. The end of all becoming, if any, should be a state of things in which all becoming would be removed and destroyed. The goal of becoming would be legitimately called the end of becoming. But, we have no reason to accept a final goal of becoming and for the same reason that we do not admit a first cause, that becoming is foreign to the true being of things and cannot have any connection with it. Precisely because becoming has no beginning, it can have no end or term; it did not start towards an end, because it has not started.

If, however, the tendency to motion is a trend

-439- of things and states to go out of themselves, one should not speak of purpose, yet, unless in another sense than that usually given to this

word. I discussed this in a pamphlet entitled: "*Of the end of Nature* ." I limit myself, here, to some explanations.

What especially suggests to us the idea of an end is progress, the development of living beings. We see that their first species were extremely simple and the following were always more complicated, perfected, until nature has achieved in man the last term of its power on earth. For, man acts by its own impulses, regardless of external causes. One thus understands the significance of this progress toward perfection.

Imperfection, as was shown in Part One, does not mean anything else than anomaly. This same fact that the given reality is pure becoming and has a tendency to change proves, as we know, that this reality is abnormal, has no real being in itself, is not really identical to itself. But, it would be absurd to suppose that the abnormal and imperfect were formed for any purpose; because, they would then not be otherwise than they are, they would be the normal and perfect. Given reality was, therefore, not formed, as seen, to serve a purpose.

But, on the other hand, when the reality is such as we see it, that is to say abnormal, it has a purpose outside of itself; because, the abnormal, that which is *fallen* from the *Norm*, naturally tends to return to it, as to its own true essence.

So, it tends to go out of the limits of its individuality, to go towards the *divine* and, in this effort, to realize the divine, the *Norm*, lies the purpose of its being. (1) But, the end that man gives with his consciousness to his being must act from the origin

(1) We shall give the proof in the next chapter titled: *The nature and unity of the self*.

-440- in the unconscious nature and in a latent manner, because we see that nature in the development of living things does not stop until it has formed Humans. In this wise, only, can we speak of a purpose in nature, under the condition, though, of excluding from this idea any anthropomorphism and not granting anything human to the natural Principle.

In the conduct of nature, I will give the proof that it tends to the highest development of the consciousness.

§ 2. Of the internal finality of nature.

We are willing to see some finality wherever a relation is observed, an adaptation of the things that has not or does not seem to have its reason in their essence. It is not difficult to discover where this disposition originates; because if the connection of the things in question is not, *ex hypothesi*, explained by them, it must have its reason outside of them. But, we cannot conceive how an external reason could combine together several things without having first united them in its consciousness. Add to this the fact that the only case of such adaptation of which we know the cause by experience, is when we or other beings like ourselves, shape and combine things. Hence, an almost invincible disposition to consider anything that does not seem explainable by the true being of things to be the work of an intelligence that forms them.

But, any relation is foreign to the essence of bodies as substances; accordingly, we should see in every Law of nature the order of an intelligent cause for a purpose. Already, the general mechanical Laws of motion, whereby the mass of bodies serves as a measure of movement and determines the passage of a movement from one body to another, show in the bodies a clear relationship with each other, a mutual adaptation which has no basis in

-441- the being of bodies themselves, that is to say which cannot be derived from the concept of body and that is rather contradictory to it. The finality, under the previous assumption, therefore, shows already in the Laws of motion. It especially shows in the Law of gravitation which unites with the Laws of motion to found the celestial mechanism, so admirably in harmony with our intelligence, that we have derived it almost entirely *a priori*, according to the very Laws of understanding: we discover in it as a Mathematics acting in space. But, all the forces and all the agents of nature show, though to a lesser degree of purity, something analog. Sound, light, heat are manifestations of a vibratory movement whose Laws can be deduced *a priori* and reveal everywhere a measure, an inner determination, and consequently signs of the Intelligence or a Principle related to Intelligence. In the field of chemistry, we encounter the astonishing Law of equivalents that betrays a special harmony, a true internal adaptation of substances. This domain, finally, which is least favorable to deduction, that of organic nature, precisely presents the most striking manifestation of a Principle related to intelligence. The

signs of the action of this Principle in the Laws of Physics pale in comparison with this manifestation. There, indeed, they are scattered in the general connection of things; here, on the contrary, they are concentrated in the connection of the parts of an individual object. So, we see in organic beings the government of finality and reason. We will consider both.

The connection of elements in an organism is such that it is absolutely impossible to find the reason of it in the nature of the selfsame elements.

First, we have never discovered, until now, in the inorganic nature, the conditions under which alone can

-442- organic life thrive. The prerequisite for the production of a new organism is, as far as experience goes, the presence of an already organized or living material that has the ability to feed, grow and reproduce. But, even if we had discovered in organized nature the conditions under which the inorganic matter is changed into organic matter - as it must be admitted at least for the first organisms - the difference between organic and inorganic would not be lessened and would still remain fundamental. We could not deduce and derive the organic nature from the inorganic. We know well the material conditions in which a sentient and thinking being appears; but, can we in any way infer its nature from these conditions? Obviously not.

Knowing the conditions under which a phenomenon occurs is not knowing the sufficient reason of it.

Second, the link between elements in an organism cannot be regarded as rooted in the nature of these elements, because the main character of the organic compound is in the perpetual exchange of these elements.

Only form in the body is permanent, out of which all organic effects issue, as much within as without.

The organic form is what conditions the assimilation of external elements (nutrition), each species having its particular Laws, differing from the others by its structure. It belongs to the form of the inner impulse to maintain the normal ratio of functions and to remove the causes of disorders. Form is also the main factor in reproduction.

If one maintains the hope of one day deriving the Laws of organic life from physical and chemical Laws, we abandon ourselves to a credulity

that is well present in the spirit of the scientific tendency, but this is not at all scientific.

It is probably unnecessary to prove that the hypothesis of a special,

-443- vital force is false and meaningless. In the world of organisms, no other forces act than the physical and chemical forces of the elements of which these bodies are composed. Similarly, an organism obviously cannot suspend or modify the physical or chemical Laws. The Laws are immutable because they do not mean anything other than the immutability of certain successions and coexistence of phenomena. But, the fact that in organic forms the action of the forces and Laws of nature is used and governed in a way that has no analogue in inorganic nature is just as unmistakable. We could, with as much reason as for the works of organic nature, flatter ourselves to deduce from the physical Laws of the elements the products of human industry. Indeed, we do not work with other forces than those of elements and we could no more change their Laws. Would it be thus correct to say that the production of the effects of our work is fully explained by the Laws of matter? (1)

We have no reason to see in the organic world the manifestation of a special Principle which distinguishes itself from the general Principle of nature; but, we must necessarily recognize in organic nature a particular manifestation of that Principle that stands out specifically from all its other manifestations. The acting Principle is in the organic nature and inorganic nature the same, but the way it acts here and there is not the same. To affirm the contrary

(1) Claude Bernard [1813-1878,] the French Physiologist who has contributed most to reduce biological phenomena to physical and chemical Laws and discredit the hypothesis of a vital force, always expressed the belief that the action of the Principle of organization and formation in the organism cannot be explained by physics and chemistry. See, for example, how a plant of the same sap that bring its roots, fashions the most different things, twigs, leaves, fruits, etc., which themselves are composed of the elements, cells and vessels, the most diverse. How to explain this solely by the physical and chemical Laws?

-444- is simply to deny the facts and that one be in this case disposed to rebel against the facts, is the result of a misunderstanding that we must seek to clarify.

The effort to explain mechanically the organic formations has found in the doctrine of Darwin [1809-1882] its most perfect expression. So, it is mainly from the vantage point of this doctrine that we will place ourselves.

§ 3. Remarks on the doctrine of Darwin.

What strikes us, first, is the emotion, the passionate interest that Darwin's theory has provoked in scientific circles. The discovery of the Law of conservation of force has made much less noise and, yet, it has an equal scientific importance or even higher than that of Darwin.

The issue was not just scientific interest but other interests very dear to the human heart.

For supporters, in fact, known to the opponents of the doctrine, it decided on how to understand the world and especially religious matters. Anyone who regards God as an acting Principle in the manner of a man had to see, in the doctrine of Darwin, a vigorous attack against religion; but, this doctrine has nothing to do with religion well understood, nor with an exact philosophical theory of the nature of things; were it true, it could in no way be opposed to them, or would be of any help to them.

There are two common errors abroad that usually have given this doctrine a decisive significance, which it, in fact, does not have. First, we do not notice that this doctrine, like any scientific theory, or more precisely any theory related to the bodies, has a value purely conditional, empirical; because, to our idea of the bodies do not respond, as was amply

-445- shown, real things outside of us, but only an organization really present in us of our sensations.

Second, we do not understand that the unconditioned, that God, is not the sufficient reason of the world, is not an active Principle and that religion, therefore, has no need to take care of solving scientific questions. Only he who has grasped these two points, may assign to the doctrine of Darwin its true place.

Even though we had succeeded in deriving from the qualities and Laws of inorganic matter the variety and development of organic forms, Science would still not have become a Metaphysics, that is to say, it would not have yet a truth and a value fully unconditioned. The proof is always in the fundamental contradiction implied in all

scientific theories: the contradiction between the concept of body that requires that the body be completely free of relativity and the actual content of Science that shows only relations between bodies. The Law, even the most basic, of mechanical action by shock and pressure supposes, as I have shown, a mutual organizing of bodies entirely irreconcilable with their concept and consequently quite contradictory in truth. It follows that any successful attempt to reduce natural phenomena to mechanical action, is a real gain for Science but the impossibility of this reduction in certain cases (*e.g.* for organic forms) does not change anything to the fundamental facts .

Sensations are the real content of experience and they have an aspect inaccessible to perception, in which they associate with each other; but, the general form of our experience is that in its content we recognize a world of bodies in space and the Laws of the experience are in fact conformed to this knowledge of bodies after their concept that they cannot have any connection between each other and do not,

-446- as sensations do, have one side of their being withdrawn from our perception. Here is what results: in reality, the reason of a given phenomenon is not only in its causes or given conditions but also in the side of nature that evades our perception by which phenomena are interrelated and which we call force. But, as nature is known as a world of bodies, we should not admit, as we have seen, that there is in it any side that evades perception, no force producing a combination; one must consider all force as a quality of the movement itself and seek the sufficient reason of the given phenomenon in the previous movements themselves, that is to say, try a mechanical explanation. This shows that Science has an obligation, it is true, to pursue everywhere the mechanical explanation of the phenomena but that it can never fulfill this obligation; that the reason of the phenomena is never, in truth, in the given objects of which one captures only the qualities and states but must also be assumed to reside in the side of nature that is beyond perception. So, have we no reasonable grounds to defend against the recognition of the force or of a particular given expression of force.

Only in this perspective is the impartial intelligence of the data of experience possible and, in particular, of organic forms. It is also from this point of view that we will briefly examine the claims and merits of the doctrine of Darwin.

When asked: "What is more likely: that the bodies emerge out of those immediately below, or that they come directly from inorganic

elements?" anyone unprejudiced will answer that the first hypothesis is most likely, or even that it is the only probable. In this sense, any

-447- unbiased individual is necessarily a Darwinian or an evolutionist.
(1)

Furthermore, the fight of organisms for life and natural selection that results are indisputable facts that Darwin had the honor to observe or discover. But, if the enthusiastic supporters of his doctrine believe that the whole multitude of organic forms is produced exclusively by selection, adaptation and inheritance, an unprejudiced person can only nod. What do these followers of Darwin actually claim? Very simply that the multitude of organic beings have their origin and purpose in external conditions foreign to the organisms themselves and accidental. Any change in form should thus be produced by external causes and organisms should have in themselves only the power to transmit to their offspring this accidental modification.

No man without prejudice will consent, even at first glance, to admit it. To pretend to deduce from a bathybius by successive adaptations all the series of organisms is simply to make thing out of nothing.

It is then obviously clear that organic beings must already have some degree of interior and fairly significant development, so that a new differentiation of their organs be to their advantage in their fight

(1) It is difficult to conceive what the claims of the proponents of the theory of creation, opposed to that of evolution, are. The Bible gives us, it is true, a clear picture of God's creation of things in general and mankind in particular. But, no one admits that God, of his own hand, formed man of silt and breathed life into it. Moreover, one that acknowledges that God himself acts on earth must grant that God never allows anyone to see him at work and he arranged things so that the elements appear to move by themselves. Advocates of creation, therefore, claim that inorganic materials of various kinds have one day combined to form a higher organism, complete, much more, a complete man! It is pushing credulity too far.

-448- for life. How a single cell or an amorphous plasma could gain something for its conservation by a complication of its structure, it is impossible to see. Because, the simple is obviously more likely to survive than the complex already made of simpler parts and thus depends on the conservation and connection of these parts. And regarding higher organisms, how many times has it not been proved

either that they have nothing to do with the struggle for existence and selection, or that the effects are contrary!

People of good sense will, therefore, unanimously admit that we must recognize in the organisms themselves a natural force of organization and development but that is determined and guided in its effects by the struggle for existence and the selection resulting. One should not see in this impulse, I repeat, a particular Principle, different from the general Principle of nature, but only a particular expression of this Principle whose manifestation must be linked to certain conditions provided in the inorganic world itself. It is useless to hope that we one day discover the conditions under which organic forms can come out of inorganic elements. But, even supposing we discovered them, it would still not be possible to derive these forms of material elements whose nature would explain them. For, we must not, as we have already shown, confuse the conditions or causes of a phenomenon with its sufficient reason. The causes of a phenomenon are simply the invariable antecedents.

A true explanation of organic forms would be the work of Mathematicians and would consist in discovering a movement of atoms as it would allow us to see, by deductive reasoning according to mechanical Laws, how it can produce the form of a living being with all its organs, all its functions

-449- and the given order of its phenomena. We can well say without exaggeration that this task will never be completed. Since mechanical Laws, as we have seen, have value only so long as the bodies are inert and that their movements, directions and velocities are inherently indifferent. The organic forms show, on the contrary, such an amazing interplay of multiple elements to a single end that it looks like these elements were given the task of pursuing in effect the same purpose.

If, now, the positive results of the doctrine of Darwin and in general of any mechanical explanation of nature, are not living up to their claims, their negative results, at least, as a refutation of teleology, are accurate and worthy of consideration. While it is true that the doctrine of Darwin failed to displace, somehow, the signs of a formative and ordering Principle in nature, which shows an undeniable kinship with reason or intelligence, it well proved, however, that there is not a trace of conscious finality in the effects of this Principle, that the latter adapts without will to external circumstances and is determined by them.

The important speculative service of Darwin's doctrine consists primarily in that it drew attention to the ways and means employed by nature in the formation of organic beings in general. Looking at it more closely, we saw that the action of nature in all adaptation of purposeful means, however, betrays no conscious intention. There is indeed a lot of phenomena occurring contrary to the supposed purpose and nature achieves its end by ways that an acting being would never thoughtfully choose.

But, then, where is the truth, it may be asked, in the mechanism or Teleology? Neither here nor there. Regarding the mechanical explanation of nature, I did show its real value

-450- and limitations; I shall now turn to the teleological view, which believes to see in nature the action of an intelligent Principle.

§ 4. Fallacy of the teleological argument.

It is important, here, to understand that the acting Principle of nature is not similar but related to reason or intelligence in us. This difference is essential and it is quite difficult to grasp. I shall try to clear it as best as possible.

The similarity of essence of several objects is generally the sign of their common origin and, consequently, of their kinship; hence, we have come, through the association of ideas, to consider kinship and similarity as absolutely inseparable. We, therefore, conclude with perfect trust from the likeness of effects to the likeness of causes, and it becomes hard to conceive that this could raise the least objection. However, experience shows us in thousands of cases kinship without resemblance. For example, there cannot be anything less alike than the male and female of some species, and they are of of the same kin, however; they have a common origin. What could be more different than the caterpillar and the butterfly that comes out of it? And yet they are more than of the same kin, they are one and the same individual considered at two stages of its development.

Inorganic nature offers us, too, similar cases. There are namely various kinds of chemical combinations, made of the same elements, but in different proportions, which are related but have no resemblance between them. There can, therefore, be no similarity without kinship, and that is enough to ruin the teleological arguments.

The most remarkable presentation, to my knowledge, of the teleological arguments is that of Stuart Mill in his study

-451- on Theism, and I will quote it as the model of a teleological argumentation.

To conclude from the effects produced for an end, as the structure of the eye, to an intelligent cause is, says Stuart Mill, a legitimate induction by the so-called concordance method, which can be logically analyzed as follows:

"The parts that make up the eye and the collocations that form the order of these parts do appear similar in this very remarkable quality, that they all contribute to making sight possible for the animal. The animal sees because these things are what they are. If one of them were otherwise, the animal would not see or would see less. (1) And, this is an admirable concordance that we find especially between the parts of the eye. But, the particular combination of organic elements which we call an eye had in each individual case a beginning in time and, therefore, had to be produced by one or more causes. The number of cases is far greater than it should, according to the logic of induction Laws, to conclude to an accidental encounter of independent causes or, to use the technical term, to eliminate chance. We are thus authorized by the Principles of induction to conclude that what united all these elements must be a common cause for all. And, as these elements do concur in this, only, that they make possible sight through joint action, there must be, somehow, a causal link between the cause that brought together these elements and the fact of sight. Now, vision, since it does not precede, but follows, on the contrary, the combination of organic elements in the eye must not be associated with formation of the eye as

(1) This statement is not entirely accurate, because the structure of the human eye has several flaws or defects. See about this the works of Helmholtz.

-452- efficient cause, but as a final cause. In other words, this is not vision itself, but a pre-existing idea of vision that is to be the efficient cause of the eye. We must therefore find the origin in an intelligent will." (*Essays on Religion*, 1870, p. 170-172)

There is one fact, only, but of the utmost importance, that Mill did not take into account. The teleological argument would be, indeed, perfectly valid, if the acting Principle of nature were a cause in the

sense that man, or in general an individual thing, is a cause, but this is not the case at all. The acting Principle of nature is, as we have seen, not an individual cause but the general *substratum* of all causal relationship, the link between the causes and their effects that makes possible their causality. No individual thing can be a cause other than through this universal substratum or this link. As soon as one has understood this, it is clear that all reasoning about the similarity of the general acting Principle with any individual cause is necessarily false, and in particular the reasoning of the intentionality in the effect of the acting Principle in the presence of ideas in it.

The essence of an idea as such consists, as I have sufficiently shown, in that it relates essentially to an object outside of itself, in that it attributes its content to objects or affirms it of such objects. By reality, we mean causality according to ideas. A goal is what exists first in the idea and only then, therefore, in reality, but this requires that the idea of the purpose and the objects in which it is realized are external to one another. If an artist chooses different materials, develop them properly and makes a clock that is the effect of a purpose and the realization of a conscious goal, because it is necessary that the artist had first the idea of the materials and their

-453- disposition for a specific purpose. But, if the fashioning power is inherent in the materials themselves, then we miss the essential trait and characteristic of the idea, namely the particular relation to an external object and that is precisely the case for the active Principle of nature. If one were to believe in the actual existence of the bodies we should then seek all adaptation and all combination of the diverse present in nature – for, far from being based in the essence of the selfsame body, they are contrary to their concept – in a reason outside of nature and we could then only conceive them as an effect of intelligence. But, I have already shown in Part One that the hypothesis of a reason external to the world, and finality in nature is inherently contradictory and a few paragraphs above I showed clearly that the bodies of our experience do not really exist. In reality, everything in the world is held in an inner relation and we must not attribute to this inner connection, to this binding Principle of things a resemblance to individual things.

§ 5. On the Logos that rules the world.

But, it will be said, what does such a striking resemblance of certain phenomena of nature with the products of intelligence mean; what do

these obvious signs of an ordering and formative reason mean, especially in the organic world?

Can we not conclude to some extent from the nature of effects to the cause, if it is not causal in the ordinary sense of the word?

We may well so conclude and legitimately; but, in this case, we must conclude from the resemblance of effects, not to a likeness, but to a simple kinship of causes. Thus, from the fact that burning coal and diamond both produce carbonic acid, the kinship of the two bodies is deduced although coal and diamond

-454- show no resemblance in their physical qualities. Now, we shall see what the kinship of the acting Principle of nature and intelligence in us means.

The general, as we know, is what is common to a large number of individual objects and we can understand it in two ways: 1. A quality that exists in many things, or 2. One thing that binds together many things, for example the color is a general quality of bodies because we find it in all bodies. Gravity is also a general quality of the bodies, not only because it shows in all of them, but also because it binds them to one another. The general which is thus present in many objects naturally cannot be something individual, cannot exist outside of these objects. The acting Principle of nature, its general Principle is of this kind, as I have already shown in the previous chapter.

But, an individual can also be something general, only in a different way - not that it is in many objects, but because it contains many objects in its idea. Our thought or consciousness is obviously the general in this regard. It conceives the world, sees all the relations and seeks the reasons. Thus, it was correct to call man a microcosm; because it carries within itself a whole world, although it be ideally.

Now, if everything in the world of experience has a common origin, it is clear that the real general in the macrocosm must be akin to the ideal general, that is to say, to thought or reason in us and manifest by similar effects; for, these are two different forms of one and the same Principle. It must then seem natural to us that human consciousness has for long perceived this kinship it maintains with the acting Principle of nature and considered it by overstatement for an essential similarity.

-455- There does not exist between them a likeness of essence, though, as already proved by the difference in their way of being. What essentially characterizes our individual nature is the distinction between a subject and an object of knowledge, that is to say, between ideas, on the one hand, and feelings and volitions that match those feelings, on the other.

But, in the acting Principle of nature we absolutely meet nothing of this distinction, of this opposition. We, therefore, must not speak of feelings, ideas and volitions when it comes to nature; because such expressions could only make us reason by false analogies.

One may say, it is true, that the intensity and effort in the general Principle, above all what we call force, corresponds to the will in us and, on the contrary, what forms, what orders, that which manifests in the regularity of things and phenomena, responds to thought and reason in us.

But, in nature we must not separate these two things.

The effort has not a particular source as, for instance, in us, feelings are a particular source of the will; this is something inherent to becoming itself, the power of the latter to persist. The difference between effort (the will) and the shaper (the idea) that we find in ourselves, has nothing to do here. Therefore, there is no resemblance between effort in nature and our will, between the shaping Principle and our ideas.

But, this is a mistake so deeply rooted that we must still insist on it a little. It seems obvious to many of us that what produces the effects of finality must act to an end, that what produces an intelligent being must be intelligent. This so-called obvious theory has no other foundation than the idea, early embedded in the minds, of a Creator who made everything out of nothing, or, to speak generally, it comes from the fact that we uncritically and

-456- without distinction transfer our own way of acting to any action.

In fact, this way of thinking finds in experience no confirmation; as experience shows, what produces is not necessarily similar to its product. From the seed issues the plant, from the egg, the animal and there is no similarity between the seed and the plant, or the egg and the animal.

As a general thesis, as soon as we know that nothing comes from nothing, but all consequent comes from an antecedent, we can conceive that between the consequent and the antecedent, between the effect and the cause, it is not necessary to have a likeness. Rather, they must be different, otherwise there would be no succession, the same thing would last forever. Granted, you may say, for physical causes, which only condition the effects, but this is not true of the causes that indeed produce these effects, and this is not true, therefore, of the acting Principle of nature, for a cause cannot produce what it does not have in itself. But, what is the acting Principle of nature? Nothing but nature itself on the side of its being removed from our perception, the side wherein is linked what is given separately in our perception.

Nature, in fact, has two sides, the side of unity and that of diversity. To admit that the side of unity, that is to say, the active Principle of nature, is like us, would be as saying that both sides are similar, not different. This hypothesis, as we see, not only is not obvious by itself, but it is obviously unsustainable. That which produces effects of finality, therefore, does not necessarily need to act towards an end, nor that which produces an intelligent being to be an intelligent being. The producer and the product rather belong to two different sides of nature, between which we can admit no essential similarity.

If we renounce the mistaken tendency to search in the acting

-457- Principle of nature for analogies with our own being and, if we consider, preferably, the relation of the one and the other as a kinship relation, we see that the general in us and the general in nature are in opposition with each other. The acting, shaping and organizing Principle of nature always remains hidden to us, because it cannot be an object of perception or intuition. However, we conceive why nature in its action is a simple mechanism, without intention and without consciousness and shows everywhere, nonetheless, a regular plan, an harmonious order, an artistic arrangement of things, in a word a resemblance with the action of an intelligence. The fact is not more amazing than seeing the subject that appears to itself as an imperceptible point in the infinity of the world, to be, however, an indispensable condition for the existence of the world itself, and the subject, or the totality of all subjects to be the support of the known world. It will seem very natural that the highest of subjects, man, appear as a second creator of nature, transforming it in accordance with its goal. But, the most interesting considerations on the nature of

things that this hypothesis allows us certainly are those that we shall present.

If we assume that each of the knowing subjects represents the acting Principle of nature, as it appears condensed and concentrated in an individual, we can notice a gradual transition from the real, objective general, which possess no trace of individuality, to the most developed individuality in man, which is also the highest expression of the general of the other kind, that is to say, the ideal general.

In inorganic nature and its Laws, the acting Principle still manifests the purest generality. There, it still does not show as the Principle of a particular thing, but as the element linking all things in general. Inorganic

-458- atoms, indeed, have no individuality, no nature of their own. A metric ton of sulfur or coal does not differ from another metric ton of sulfur or coal, only in that it does not occupy the same place. The general nature of the matter is still here all in all. But, the first degree in the transition from acting Principle to the concentration and individualization, we already see in the organic, soulless bodies. The organic body is already a fact of an individual specie. In it, the active Principle shows itself not only as the foundation of the general relations of things, but also as the Principle determining as such the individuality of a particular thing or, if one prefers, forming its soul. Tendencies and functions of organic bodies still remain, however, mere expressions of the acting Principle of nature, but it appears here as within a particular thing. We see in the organic bodies a relationship to other things (considering it as organic only, as this same body and matter in general, is entirely subject to the universal Laws that manifest the relativity of things), but only insofar as they are the necessary conditions of its existence and must serve for its conservation.

An organism has, thus, its center in itself and that is why it was rightly called an end in itself.

The next degree in the concentration and the individualization of the general is more particular and more meaningful. This is where the general appears as subject and, first, at the lowest level of the animal, as simple feeling of pleasure and displeasure. Here, individuality really appears for the first time. While the animal feels its own state (like pleasure or pain), it has something exclusively its own, a ground

that is lacking in the bodies. The state (the movement) of a body is not, as has been shown, proper

-459- to this body and may be, for shock or pressure transferred to another body. Such a transfer is absolutely inconceivable for a feeling, because it is a state that properly belongs to the sentient subject. The actions of a lower animal, it is true, are still purely mechanical, are unintentional and without consciousness and are distinguished from purely reflex actions only in so far as feeling is their means. As we rise in the animal series we find a growing development of individuality that goes step by step with the circle of knowledge a beast may have, that is to say, with the gradual extension of its horizon, with the extension of its ideal generality. Animals, except man, are still fully in dependence of nature. Nature does not only assigns them the purpose of their activities, but also, for the most part, the manner to reach it. The general Principle is still, for the most part, what knows, what wills and what acts in the animals. It is the general Principle that leads them in the search and choice of their food, in their loves and caring for their young. It teaches the bird to build its nest with perfection as we know, the bees to form their cells, insects to lay their eggs in the most suitable locations; it gives to all in general the best direction for the preservation of the individual or the species.

We know that some animals prepare things they cannot have any experience of and pursue goals they may have no idea of. The government of the general Principle for the conduct of animals is what we call instinct. (1) But instinct does not determine actions in

(1) I have to mention here the doctrine that instinct is a consequence of acquired experience. It goes with this doctrine as with that of Darwin in general; it has some truth, but it is far from accounting for all the facts. If animals must themselves take care to meet their needs, it is obvious that they could not have existed and somehow gained experience without the help of anterior instincts. Unless you admit that the needs themselves of animals are acquired. But, we could not defend this without a laugh.

-460- their minutest details. Many things are left to the proper experience and the reflection of the animals, and this all the more so that they are higher in the order of individuality, that is to say, as they have gathered more experience and are more able to use it. No doubt it is not always easy to tell how many actions are due to pure instinct and how many to some degree of reflection. Thus, we see a progressive

release of the individual as regards the real, objective general, which is parallel to the development of a subjective, ideal generalization, that is to say the widening of its spiritual horizon or its field of vision.

In humans, this progressive development reached its highest degree. Here, occurs something utterly special, utterly new, that we do not find even delineated in the animal. Man has indeed a wider circle of vision, not only in that he knows more things than the animal, but in this essential sense that he is aware of the general as such, that is the Laws and kinds of things. Here, the subject is presented frankly as something general (ideally), and this is precisely thereupon that the incomparably greater personality of its individuality rests, its greater independence as regards the acting Principle of nature and of its Laws. Yes, man finally arrives at this result of subjecting the fundamental Law of all living beings to examination, which also forms the basis of his own individuality, namely selfishness, and to doubt the value of individuality itself. And the more a man overcomes the bonds of individuality and its conditions, the more he expands in the direction of the general, the more

-461- he develops and personifies as an individual, the more he frees himself as regards nature. The highest development of personality would be reached only in the man who would unite in himself the most general knowledge, the most comprehensive things with the broadest sympathy and most complete independence as regards the impulses of his empirical nature.

But, this supreme development of individuality presupposes a Principle that is quite different from the general acting Principle of nature. Because, it consists precisely in this that man transforms himself from a natural being into a *moral* being, that he frees himself from servitude towards nature and no longer obeys the natural impulses but higher Laws, that he conforms his thinking to the purest possible logical *Norms* and his will and his actions to moral *Norms*.

So far, we have only considered the kinship of the active Principle with our own nature. But, we must not overlook what, in this Principle, is foreign to our own being. This Principle is in fact related to our empirical being only; on the contrary, it is alien to the true foundation of our being and the being of things in general. What is foreign, suspicious in the Principle of nature shows above all in the fact that it is the source of all evil or that it contains the reason for the Laws under which evil can appear in the world. Already, the fundamental Law of

all living beings, which is the foundation of all individuality, selfishness, necessarily pushes towards the struggle for living conditions, and is thus a necessary and inexhaustible source of evil.

The wickedness of the natural logos manifests in this cruel Law that living beings use other living beings for food. By this, evil appears as part of the order of things, not as the accidental result of the exercise of the Laws. Hence, these Laws contradict in the highest degree

-462- our reason, and any attempt to justify them in the eyes of this reason is pure verbiage that has its origin in some preconceived and untenable hypothesis. This is particularly the case of the hypothesis that the active Principle of nature, the logos, manifested in man, is identical to the unconditioned that under the concept *a priori* must be conceived as the good and perfection, as the divine, itself. The results of this identification are the most obvious contradictions impossible to destroy of Theism and Pantheism.

But, although the acting Principle of nature is nothing less than divine, yet we can see in its processes a trend towards the Divine, towards the *Norm*. Already, the degrees in the development of individuality which we have spoken of, put this fact beyond doubt. Can we consider as a simple result of chance that nature, beginning with the most inferior species, gradually rises until the man specie which, in turn, can rise above nature?

Without other proof, the hypothesis of such doubt must seem absurd to any thinking man, but we can peer into nature at work and actually find in it the testimony that it really has in view the highest development of individuality in man.

The progress in the development of individuality consists, as we have seen, in that the individual's action is always less and less determined by the general Principle of nature and the individual is more and more in control of himself.

Now, one must understand what this gradual liberation of the individual implies: it is nothing else, you might say, than a voluntary limitation that the acting, general Principle of nature imposes upon itself. (1) This appears in a striking manner if we observe the following.

(1) It is clear, as we have seen, that there can be no real, conscious intentionality of the Principle of nature.

-463- In previous parts of this book, I have decisively proved that no individual thing can be cause in itself, can possess power in its own essence, or can produce changes or actions outside of itself. It was further demonstrated that the things of this world, in a general sense, have no really proper, original, being or, as a result, primitive powers. Finally, in the last chapter, I especially showed in relation to man, that we are not ourselves cause and do not perceive ourselves as cause. If the voluntary movements of the body follow our volitions, it is not the effect of an individual power that is within us, but rather the effect of the general relationship of phenomena. There is nothing ours but our will; but, that our will produces external effects, we owe to the general, acting and binding Principle of nature. Our actions are produced in reality, like those of the smallest animal, by this Principle. But, while the actions of a lower animal are all instinctive, that is to say, occur regardless of views and experiences (which are also quite absent), ours are completely foreign to instinct and depend exclusively on our reflection. How is this possible?

Nature lets us learn the usage of our members to an end - although all the movements of our members are exclusively its work in reality. Nature, therefore, withdraws itself, in some way, from the task of driving us as it drives the lower animals. It does not immediately adapt, as in the latter, our actions to our needs, but leaves it to us to find the means to satisfy them. Nature thus founds the basis of our complete emancipation as regards its authority.

As our will does not itself act on our nerves and the muscles that depend on them, we cannot

-464- learn how to act on the nerves and the muscles.

We have of these nerves and muscles no direct experience, coming from within. We learn the intentional use of our members only in the sense that we use our muscular sensations as indications for the corresponding attitudes and corresponding movements of our members. Outside the muscular sensations and feelings of the external senses we have no point of support for our action and we have even almost never a clear awareness of our muscular sensations. I can move at my will in every way my arm, my hand and all their joints; but, outside of desire or will, I find nothing clear in me that contributes to this movement. I have no clear awareness of the corresponding muscular sensations, nor, indeed, of the way I use my muscular sensations to act; the fact is that all our action is ours *in appearance*,

and it is in reality the work of the acting, general Principle of nature. And, the fact that this Principle, in this case, somehow denies itself, hides and masks its participation, proves in the most palpable way that nature, although quite blindly, works itself of its own movement to the freeing and personality of individuals.

I do not need to add anything concerning the Logos which governs nature.



BOOK TWO

THE SELF

Chapter 1

The nature and unity of the self

§ I. Exposition of the fundamental doctrine.

No one, as we know, has succeeded in making comprehensible the essence of the self. Different theories have been proposed on the subject none of which according with the facts. Stuart Mill has already expressed the view that the inadequacy of all theories on this object has its reason in the nature of the object itself that cannot be understood exactly. That is the truth. (1) However, an exact knowledge of our being is possible, provided, it is true, that we do not intend to explain the facts but only to see them as they are.

For, to try to explain an object that is not susceptible of a real explanation is the primary source of all the misconceptions we have of it.

Now, the rigorous determination of the facts gives the following results which form the foundations of a truly scientific Psychology.

(1) How strange the destiny of man, unable to understand his own being! In any case, it is clear that the empirical human being is not his true and normal being.

-466- Our self is neither an unconditioned unity, a substance, as taught by the Spiritualists nor a simple series of feelings and sensations, as the Sensationalists admit, nor a product of the work of atoms, as Materialists claim. Our self is a compound or a process, but who *knows* itself as an unconditioned unity, as a substance. There is, here, indeed, an illusion, but without it, the existence of the self would be impossible and, in it, he becomes aware of its unity that possesses, at least, the same kind of reality that ideas and special feelings, although it is not like them the object of an immediate perception.

To clarify this surprising fact, we can take the example of an organism. In an organic body, the whole governs all the parts and forms the matter, while at the same time, the whole is at all moments, itself, the product of the compounding of its parts; this is the same in

the self. There is, however, a fundamental difference between the two cases, and here it is: our self cannot, as an organic body can, be reduced to elements which, after their separation, continue to subsist. The elements of our self, feelings, thoughts, desires, etc., do not exist independently of each other, and they differ only in their succession, in their vicissitudes. The unity of our self is, therefore, so much deeper and more real than that of an organic body. If, however, we are compounded, our unity is not a normal unity (which corresponds to the *Norm* in our thought) and it is, thus, incomprehensible. I shall seek later on to clarify this fact as much as possible.

§ 2. Our self is not a substance, but a compound and a process.

In Part One, I showed that the difference between the unconditioned and conditioned, between being and

-467- becoming, is also an opposition; that anything conditioned and all existing becoming in time is something abnormal, that is to say contains elements that are foreign to the unconditioned, to the real, normal being of things, of substances *per se*. That is why the becoming cannot be conceived as the intrinsic quality or true state, nor as the effect, or in general any known function of the true substance, of what really is.

We shall confirm it by the study of our subjective being. In ourselves, we find no substance that is either the support or the foundation of our inner states. We are not, we live, that is to say our being is just a course, a process, a becoming. Not only our inner states are successive and changing, but our seemingly permanent personality, all our self is itself, at all times produced anew by the concurrence of various conditions. (1)

To see it unmistakably, we must first of all discover all that we can know about ourselves, our true being or our self.

Our self essentially consists of Consciousness, of the knowledge of ourselves. We will later search for the meaning and the reason of that fact; it suffices, here, to see how the content of our self, its extent, is determined and as if circumscribed thereby. This alone belongs to our being that we can recognize as unique to ourselves, as a part, a moment of ourselves.

Thus we find in our immediate experience the sensations of the external senses (colors, sounds, smells, etc.), but they do not belong to our subjective self, precisely

(1) We can also be destroyed in a moment. Just a simple change in the conditions on which our existence depends, is enough.

-468- because we know them as something foreign to us. Thus, no research on colors, sounds and other sensations and their Laws, gives us any light on our own being; we simply recognize in them a world of external substances in space.

And, if the sensations that we are immediately given in perception are indeed not part of our self, because we know them as something external, we must the least consider as belonging to our own being that which does not fall at all within the circle of our perception, our self-consciousness. What I am, I know or, at least, I can find out and there is an immediate contradiction in the hypothesis that what I cannot absolutely know of my self, belongs to my self.

We can, therefore, attribute to our own being only the content of the perception that we recognize and must recognize as belonging to us. If we now seek what is this content, we find that it consists of feelings (pleasure and pain), ideas, desires, memories, hopes and such other psychic phenomena. Our self is thus verily a compound of these phenomena.

A Spiritualist will say here: "But we distinguish our self from our feelings, our thoughts and our other inner states. It is something permanent that remains identical to itself in the flow of our inner states. It is, therefore, a substance and its inner states are only accidents that occur in it under the influence of external factors. "

We must, before going further, realize exactly what it is all about. The states of a substance could not exist separate from the substance. The substance would then

-469- be given in and by its states. Now, the question is, where do we find a substance in our inner states?

What is the thing in us which in turns feels sometimes this, sometimes that, wants this or that and maintains in the modifications of its functions a consistent manner of being? It is clear that such a

substance, such a permanent thing is not found in our experience. All that is given to us, are diverse and changing states; but, the being of a permanent, unique substance cannot consist of diverse and changing states. It is equally inconceivable that a real unity, a substance may undergo changes and yet remain the same unity, the same thing as it would unite contradictory terms. Even the simple movement, the change of external relations of things in space that would leave intact its inner way of being implies contradiction, as we have proved. A substance in us is neither a given in fact, nor is it even conceivable. An otherwise penetrating thinker, but as a result of his metaphysical hypotheses, felt obliged to admit a substance of the soul, said with admirable *naïveté*: "Fortunately, our awareness of ourselves knows not what to say of the essence of soul" (Herbart, *Psych, as Science*, vol.1 1824, p. 97). But, if this alleged substance of the soul is not at all part of our consciousness, if we can neither know it as being ourselves nor know ourselves as being this soul, it is not us *ipso facto*, it is something that is foreign to us, different from us. The practical proof of it is that no one attributes any value to the immortality of an unconscious substance in itself and that everyone demands only the immortality of their conscious life, their conscious personality and identify with it. (But, who could seriously affirm that the individuality of a man contains something eternal and can exist

-470- for all eternity?) What has been produced is not a substance, it is a simple phenomenon and it belongs to the becoming.

That which was produced has a cause, is the simple effect of certain conditions. This, as I have amply proved in the Part One, is an *a priori* truth, without exception.

We, therefore, note the following facts: The unity and identity of the self rest primarily on the unity and continuity of our consciousness of ourselves. Our self, therefore, is something that every moment is reproduced again by the function of self-consciousness. In deep sleep or during a moment of fainting it disappears and thus proves in the most decisive way that it is not a substance. Or if any substance persisted in us in sleep, during fainting, we would not be this substance, because we have not lived during that time. (1)

"But there is, however, it will be said, something permanent, persisting in our being and in our life, otherwise we would not last." Yes, there is something permanent, persisting in us; but, that is not of the nature

of a substance but of the nature of a Law; it is not a real, concrete content, but a simple form.

A substance is an object that has its own being, not derived from outside, independent of external relations, an original, individual content. We find in ourselves neither such a being nor such a content. Our inner states and our actions are merely reactions against the actions of the outside, and our qualities are kinds of manners of reactions against such actions. The permanent, the persistent of our being con-

(1) When we have no consciousness, when we feel nothing and do not think, when we do not perceive, we are not. What is then left of us? Just the mere possibility, that is to say the conditions that produce again our self, but do not mingle with it.

-471- sists of the following: 1. In the continuity of consciousness, in the ability to remember our past life; 2. In the persistence of the effects of our past life in the present, in accordance with the Law of causality; 3. In the persistence of Laws that are natural to man in general and finally, 4. The persistence of an individual character, which must be considered as innate in each one.

Of all these elements, only the last one, individual character, seems to contain a relatively original germ of individuality. But, what is this innate character? Either the ability to do something, such as the ability for painting, poetry or music, etc., or a disposition of the will to a particular kind (good or bad) of actions; or in the special way of feeling objects or situations of life. What may be innate or special in us, is not a true way of being, but a way of behaving with regards to other things. And, these innate qualities are so far from being in us those of an indestructible substance, that they can be modified by the influence of education, environment and habit as, under the influence of education, environment and habit, permanent new skills can be produced, which has rightly led to the saying that habit is second nature.

But, we see, moreover, that the individual qualities cannot be considered in their essence as legitimate and normal. Our essence is to feel, think and will.

Quality cannot be for a man but his manner of feeling, thinking and willing. But, the thinking of a man has no value and no authority and

cannot be considered normal, if it is not accurate - and the right way of thinking has nothing of individual. Likewise, the manner of feeling and the direction of the will of man has no legitimacy and cannot be valued as normal

-472- if it is not right or virtuous - and there is nothing individual in the right way to feel, in the virtuous direction of the will. (1)

So, we see that our being lacks any individual germ. What in the variety and vicissitude of our states and our inner acts is one and permanent cannot be perceived, is not a substance, a content or a real object, but only the unity of a function or a Law. In fact, our self is a simple compound, a simple process.

§ 3. Meaning and foundation of self-consciousness.

Kant already, in his critique of what he calls *Paralogisms of Pure Reason* (especially in the first edition of the *Critique*) explained very well in his own way the facts noted above. But, he has not quite taken into account what caused this "rational" or "transcendental" Psychology he so much criticized and refuted. What he calls *Paralogisms of Pure Reason*, the supposition of substantiality, simplicity and numerical, unconditioned identity of the self at different moments of time, is not a mistake of reflection, but the necessary form of our consciousness. These are not paralogisms of pure reason, but a *natural deception* which is the condition of our own intimate experience itself. (2) We appear to ourselves as a simple, distinct and independent object, separate of all others, remaining identical to itself, in a word, as a substance, as something that is and does not become

(1) No one identifies with his weaknesses or his bad qualities nor desires to keep them for all eternity and that is indisputable proof that the wickedness, even innate, does not belong to our own and really normal being.

(2) No doubt the "rational," spiritualist Psychology is really a mistake of thought or reflection, but this error has its basis in a natural illusion, prior to any reflection.

-473- and reproduces again at each moment, something that has an original, true being, a self, which is not simply the product of causes and conditions.

Without that appearance, consciousness and individuality in us would be impossible; in a word, we could not be.

We appear to ourselves as something solid, simple, permanent. (1) Whether we are composed of parts, never completed or similar to ourselves, as the content of our personality is the product of causes, so that I would have another self, another personality, if I were born in China or in Turkey or among the Eskimos - all this seems absurd to our natural consciousness and we need an exact observation of our being to convince us of these truths. Nothing is more incomprehensible, and even more extraordinary than the true way of being of things from experience, both within and without; but, the natural deception falsely presents us a conformity of the empirical nature with our concept of the normal nature of things and, therefore, to anyone who has not quite a penetrating vision, everything in the world seems normal, conceivable and even intelligible *per se*. I have already explained above the reasons and factors of this natural deception in our knowledge of the external world, and I will try to do the same for the knowledge of ourselves.

The fact that we know ourselves seems to imply that the knower and the known, the subject and object are one and the same in us. But, first of all, it is logically contradictory, impossible to think and, secondly, in fact, this is not the case.

Already, in the chapter of Part One on the nature of

(1) Herbart made a good analysis of consciousness in his *Psychology* (at the beginning); we unfortunately cannot say the same of his explanation of it.

-474- the idea, I examined this point. The hypothesis that an object is immediately itself an idea, or that an idea is immediately itself an object is absurd and unacceptable. First, in fact, two things cannot be immediately one and the same thing. Are they different from each other, they are not the same, and are they the same, they are not different from each other, they are not two, but one. To affirm that the diverse as such is one and the same, is to suppress the Principle of contradiction, which puts an end to any real thought. Secondly, the essence of the idea as such consists, precisely, in this that it is not its object, that everything in it relates to something different from it as to its object of which it represents only the qualities without possessing them itself, as I have shown in the chapter indicated above. If,

therefore, we say that the idea itself is its object, we actually deny that it is an idea.

The testimony of the facts confirms these observations. If the subject and object, the knowing and the known, the idea and its object were one and the same thing in us, error, falsity, that is to say the disagreement between the idea and its object would be impossible in the knowledge of ourselves. But, we actually see that falsity is not only possible in this knowledge, but that it is even a necessary form, because we necessarily appear otherwise than we are.

In our self, the idea and its object, the subject and its object are thus two different things. (1) How we conceive

(1) And even of a different nature. For the subject, that which knows in us, as we shall see better later, is something general as to its essence, while the object, that which feels and wills in us is of individual nature. Our consciousness is, therefore, much larger than the concrete content of our personality. We know around us a world in which our personality forms only a very small part. We have thus the opportunity to go out through consciousness of ourselves, of our personality. This separation in us of the knowing and sentient elements also explains a fact which would otherwise be incomprehensible, namely that the opinions and ideas often have so little influence on the will and actions that what we see best we do worse. It would obviously be impossible if the thinking and the sentient in us were identical.

-475- the unity of the self in this diversity of elements, I will look for later. Here, I want to explain under what Laws our consciousness of ourselves is constituted.

"I know myself," therefore, means, according to the above: the knowing, the subject in me, knows the object as himself, that is to say, recognizes the real content given as its own content, the given states (feelings, desires, etc.) as its own states, although in truth the thinking and the knowing in us are not the sentient and the willing and the subject is not immediately the object.

Now, we may note that the distinction between what is its own and what is foreign to it (of self and non-self) cannot, as Fichte [Johann Gottlieb Fichte (1762-1814)] has well noticed, be learned by the subject or acquired during his experiences, but is based on a primitive need or a intuition.

I have already explained it in the third chapter of Book One. Without an immediate intuition, innate in the subject, the distinction of what is proper and what is foreign to us could not happen in us, would not exist. If, in effect, something belongs to our self, it is precisely because we know it as belonging to us, and, on the contrary, some given content in our perception is foreign to us precisely because we know it as such, as it occurs to the sensations of the external senses. But, if the subject knows as his own states the given inner states, it implies that he knows himself as the substance of which these states are the accidents.

A substance is an object which, 1. Has its own being, and,

-476- consequently, 2. Cannot be conceived as a function of another object. But, our self, our consciousness, precisely consists of what we recognize in us our own (*i.e.* as ours strictly the given inner states, present and past). We thus appear to ourselves, necessarily, as a substance. We cannot appear to ourselves, in our immediate consciousness, as something conditioned, as the function of something else, because then it would be this thing that we would take to be our true self, and it would no more be an object different from ourselves. But, in the perception we do not have, in general, an originally persistent content, a given unconditioned object; we only find a flow of feelings, desires and other inner states.

It is, therefore, not possible logically or in fact that we appear to ourselves as the function of something else or as something conditioned. Our consciousness of ourselves rather comes from the fact that we take all these changing inner states for functions of ourselves and we take ourselves for their substance. That we really depend on a large number of conditions, we only learn from experience, by induction, but not by immediate consciousness or intuition.

Thus the consciousness of ourselves, the self or personality is possible only because the self knows itself as a substance, as a mere object, permanent and unconditioned, separate and independent of all others. In truth, we are not, as we have already shown, such an object: the knowledge in us of an independent self is a natural deception, pure appearance. But, without this deception our consciousness would be impossible and it cannot, therefore, be separated from it. We are a particular object, different from the others, permanent and unique, precisely because we appear to ourselves as such. We clearly see

-477- that we do not have, in fact, a true being, that our true self is not in personality, in individuality, but outside of them; but, this opinion cannot be transplanted in our immediate consciousness because consciousness, the phenomenon of a self in us and our whole personality would thus be destroyed. This is here as in the perception of the body which is not altered either by the opinion that the bodies do not actually exist outside our ideas. On both sides, these are cases of a natural appearance, without which the existence of the given content would not have been possible and to which the order and regularity of this content are in fact adjusted and coordinated.

Until and unless we understand this, we cannot have of the essence of the self but a limited and false idea, as are the doctrines of the Spiritualists, the Sensationalists and Materialists. The Materialist doctrine is currently [1884] dominant.

It was found that our self is not an unconditioned object, a substance; but, we have not freed ourselves by that of the natural illusion, and we seek everywhere a support in that which is not itself a substance and we believe that the self is a function of the body that the real self, the substance of our being must be in the body, or part of the body, in the brain. (1) But how can we see in the body our true self when we know that all bodies are foreign things and external to us? Is there not an immediate contradiction in affirming that we are part or

(1) Consequent Sensationalists reject any idea of substance, both spiritual and corporeal. But, pure Sensationalism is unsustainable. For, if there is nothing else in reality but feelings and sensations, they are, then, the normal nature of things; they are in themselves the unconditioned. But, who can believe this for a moment? We see that feelings and sensations are not only conditioned, but also subject to a natural appearance that shows in them states and qualities of a substance. How is this? The appearance, the error, do they belong to the normal nature of things? I have no need to further expose Sensationalism of which my entire book is a refutation.

-478- a function of the outside world? If we were, there would be for us no outside world. Or, on the contrary, would not the parts of the brain be corporeal as the other organs, would they not be parts of an external world in relation to us? But, the materials that currently form our brains come first from the outside as food and are then separated from the body through excretion. It is thus seen that in any case, Materialism is nonsense. But, the main objection is that the body, in

general, does not exist. The fact that we know corporeal substances has exactly the same basis as the fact that we know ourselves as substances, namely the existence of a substance is the only way of being that answers the fundamental Law of our thought and is consistent with its requirements. We cannot naturally conceive that there are objects that are not substances, that is to say which have not a true being and, on the other hand, such objects cannot exist without being conceived by the subject, in whom they appear as substances, that is to say as normal objects. So, we know in our sensations a world of unconditioned substances, uncreated and indestructible (the bodies), and we appear to ourselves as having a true being, a real and substantial self that is permanent and known and identical to itself. Similarly, we are surprised to find ourselves in reality but a product of conditions, a something that is not, but becomes, which reproduces at every moment. In what follows, I shall shed even more light on the true nature of the self.

§ 4. Dependence of the self on the conditions. Of what nature is the unity of the self?

Here is the only point of view from which an accurate conception of our self and its unity is possible: we cannot

-479- understand the unity of the self, but this cannot disturb us when we realize that all link, all union of the diverse is incomprehensible to us, because it is incompatible with the fundamental Law of our thought. Just remember the difference explained in Part One between an unconditioned union and a union of the diverse. That the diverse as such (unconditional, immediate and immutable) be one or that one be in itself diverse, is not only incomprehensible but is also logically contradictory and impossible to think. But, what is given in perception as diverse and multiple, is linked in itself or with the side removed from the perception (and, therefore, not immediately or in itself) and form a unit; this is probably incomprehensible to us, but not contradictory and logically impossible. Such a union of the diverse form the content of our common experience and the essence of our self is constituted by it. In our self, nothing is unconditioned; its being is always in motion and is dependent on conditions; so must we take as really absurd, that is to say logically contradictory, not a real quality of the self, while it does seem absurd or incomprehensible.

Thus, appears at first glance the fact that the knowing and sentient, the subject and the object are in us two different things, irreconcilable with

the unity of the self. "Am I not the same, it will be said, who thinks, who has ideas, and feels and wants? Am I formed of two halves one of which feels and the other thinks?" This is the fact, as was shown above. It seems incomprehensible only because we appear to ourselves, in our consciousness, as a simple, normal unit, but it is, as we know, a pure deception. A simple, normal and unconditioned unit cannot contain the duality of subject and object, so cannot

-480- be aware of itself and, conversely, that which is self-conscious, that which contains the duality of subject and object, cannot be a normal, unconditioned, unit. For, an unconditioned unit or an unconditional union of the diverse, are logically contradictory and inconceivable. And, not only the sentient and the thinking are not in us one, but each of them, taken by itself, sentient and thinking, is not a simple unit, identical to itself, but both are in perpetual change, although we cannot say, in all cases, that the sentient is in us a pure succession of feelings and the thinking a simple succession of ideas. That we see ourselves as a single, indivisible unit and always the same, is, as we have shown, pure deception, without which consciousness would be absolutely impossible.

From the fact that the unity and the existence of our whole self is conditioned by a deception and that such a deception is possible only in the idea, it follows that the thinking subject is in us that on which the unity of our self is primarily based. The subject is as it were the fundamental pillar of the self because our existence is inseparable from our consciousness, or rather consists of the same consciousness.

The ancient advocates of "rational Psychology" have, as seen by the critique Kant made of their argumentation, concluded from the unity of the judging and thinking subject, in us, the simplicity of the self itself. Indeed, the judging subject is in us what unity manifests most undoubtedly. All judgment in which different things are compared with each other, whose difference and agreement are known, supposes the unity of consciousness in which they are being mutually related. It is even more evident from the knowledge of the past and of the succession

-481- that is not possible without the subject representing to himself the past in his consciousness. We cannot, therefore, say that the subject is a simple succession of ideas, that the unity of consciousness occurs itself only as a combination of particular ideas. For, in the case particular ideas could act on each other, this action would not be

physical in nature and would consist in this, that certain ideas, according to the Laws of the association, either attract or repulse them. But, from a simple combination of ideas no unity of consciousness can result, no more than from the mere reproduction of previous ideas can knowledge of the past as such issue. These are functions that cannot be explained physically, because they are produced not under physical Laws, but according to logical Laws. But, only a subject can obey the Laws of logic; only he can judge, reason, remember the past and anticipate the future.

The subject is, therefore, not simply the result of the combination of particular ideas but, on the contrary, ideas are, as they contain judgments, acts of the subject. It is so obvious that it is useless to insist further.

As long as we remain immersed in the natural appearance and, consequently, we consider all becoming as a function of the substance, we must obviously find in the unity of the thinking and judging subject evidence of a thinking substance, then abandon this hypothesis as absolutely irreconcilable with the facts. If, however, we understand that the given reality of which all the parts are in a perpetual flux is abnormal, that is to say contains elements that are foreign to the unconditioned, to substance, in other terms to the normal being of things, it is clear that the becoming is not a function (in any known sense) of the real substance and we learn to think that the world of appearances, of phenomena, is not itself unconditioned,

-482- does not have a sufficient reason in the unconditioned and remains relatively independent, because it appears to itself as a normal world, as a world of substances. From this point of view, there remains no difficulty to recognize the unity of the thinking subject, according to the testimony of the facts as something real, although it is not a substance, and we cannot make ourselves a clear picture of it. For, only logical contradiction is impossible and completely inconceivable and nothing conditioned and, consequently, nothing that occurs in our self can be logically contradictory.

The unity of the thinking subject is proved in a perfect manner in us by the fact that it distinguishes in the content of perception what is proper to us and what is foreign to us.

This distinction is so little the result of the data of perception or their combination (their participation), that it is only through it that our

external experience and our internal experience do start. It is by the distinction of what is proper and what is foreign in the given content of perception that also occur the knowledge of an external world and the knowledge of ourselves, our self.

While the subject recognizes the given changing feelings, desires, etc., as his own states and actions and remembers as his those that are past, he recognizes in himself a self supporting these states. But, in reality, there is not, as we have seen, such support; the persistence of the self rests on the persistence of consciousness and, consequently, the function of the knowing subject.

But, the lasting function of the knowing subject, to recognize as his own the given states, manifests a natural Law of this subject, which thus forms the proper foundation of the unity of subject and the self.

And not only is the subject forced to recognize as his

-483- the feelings, desires and other given phenomena, but also those states, yet these states and phenomena, on their part, are such that they respond to this way of being understood. The series of ideas and knowledge on the one hand and the series of desires, feelings and other internal states, on the other hand, are arranged so that they seem to belong to one and the same self, identical indivisible and permanent. This is so much the case that for the natural consciousness the affirmation of our being, our self is something compounded and artificial, a work of art of nature, seems quite absurd. But, the analysis of the facts puts it beyond doubt and nature has taken care to provide us an *experimentum crucis* in a case that fully illuminates every thinking being, namely in disorders of the mental life, in diseases of the mind. That our self is not a simple substance, but a complex organism, we see it in an indisputable way, when this organism becomes disarranged.

Mental illnesses are thus the strongest proof against the hypothesis of a substance of the self, and also, in the common opinion, the greatest support of Materialism.

Mental illness generally consists in that the parts and functions of the self do not agree anymore. A disease of this kind is produced by external causes, but its possibility proves that even the normal state of agreement of all parts and functions of the self is not something unconditioned and primitive, but the very product of conditions. Physiologists have placed beyond doubt by section of the

nerves and brain, that even the normal being (that is to say, what we ordinarily take for such) of the mind depends on the nervous system and particularly the brain.

Now, we already know from the foregoing what we must think. The dependence, as regards the body and brain is nothing else, actually, than the dependence

-484- on the Laws of nature, that is to say the acting Principle of nature. Because, first, the bodies as well as the brain do not actually exist and, then, if the brain atoms did even really exist, they could have by their own, physical being, no influence on the life, as they have none before their entry into the body, or after their removal. As much as the admirable order of the atoms in the body and in the brain, their participation with our life and physical being is made possible only by the acting and living Principle of nature.

Here, we touch the last reason of nature and the unity of the self. Our being, our life, as our perception of the bodies, is a work of art of nature. The unity of our self, what unites in us the sentient and the thinking, as well as the particular feelings and particular ideas, that which contains the reason for their order and their regularity, is part of the general, acting Principle in nature and cannot be more perceived than it is. We are the general Principle of nature in so far as it seems condensed in an individual. I have already tried to explain it in the previous chapter, and we can now understand this better. The thinking subject in us is, as to its essence, something general: our thought embraces a world. If the thinking subject were not linked to an individual given content, it would not be constrained by a natural Law to know as his an individual given content or to identify with this content on which consciousness and individuality rest; it would be something absolutely general, without admixture of individuality. (1) The unity of consciousness that does not consist only

(1) We should not, however, understand it as Schopenhauer did, to whom the knowing subject is the same in all men. This would be the case only if all thought the same thing at the same time. But, experience shows that each of us establishes a particular course of personal ideas, of which others can know nothing, immediately. Also, although the knowing subject is, by nature, something general, it is, however, individualized in living beings and there are as many knowing subjects as conscious individuals. What is common to all, is

not the knowing subject, but what binds the subjects together, the acting, general Principle of nature.

-485- in that many ideas are linked, but that in all these ideas a whole real world can be known as well in the present as in the past, is also what cannot be explained as an individual phenomenon, by physical Laws only. The unity and universality of our consciousness proves our kinship with the acting, general Principle of nature, which is not something else on its part than the internal link that binds together the conscious subjects and contains the reason for the regularity of their perceptions and their inner states. The general, the unity of the diverse in us as in nature is not given, it is true, in perception, nor very intelligible. But, as this unity does not imply any logical contradiction, as, in it, the diverse is not one in itself, unconditioned or immediate, and the one as such is not diverse, its incomprehensibility must not torment us, otherwise .

§ 5. Higher Perspective.

We must yet, in this chapter, touch another vital question raised by all our previous explanations.

If our existence is a masterpiece of art of nature, a compound and a product whose parts and functions absolutely dependent on conditions, what kind of personality do we have? How can we speak of freedom and moral value? Freedom is the power to determine oneself, that is to say the determination of the will according to motives and impulses of one's own nature and

-486- we have already shown that the individual does not have a really true nature, not produced and unconditioned.

In fact, for no living being up to man can there be a question of freedom but for humans; it is different and the reason is easy to see. That which seems to rob us of the appearance of personality, namely the discovery that we do not have a really true being, that our individuality does not have an unconditioned content and is conditioned by an illusion is, in truth, the most solid foundation of our liberty and our personality. For, this selfsame discovery raises us above the Laws and the conditions of our empirical nature. We have recognized that individuality contains something abnormal and is conditioned by an illusion, that the really true, normal being of things is, therefore, not a plurality of individuals, but a unity, a substance; we thus recognize precisely that our own self is not in our individuality, but in the only real substance or, to use the

most accurate expression, in God. With this awareness, we rise above nature; precisely because we know as the Law of our really true being that of obeying not the natural impulses, but the Laws of a higher order, the *Norms* of thought and will, the logical or moral Laws. Freedom consists in following these Laws.

Having attained this perspective, our consciousness remains, on the physical level, subjected to natural conditions. A shock to the brain can deprive us of consciousness, morbid brain changes can make us insane. But, as long as we are conscious of ourselves, we stand by this discovery above nature. And, our dependency as regards nature, as well as our elevation above it, can be expressed in a single proposition:

-487- In man, the empirical nature reaches the feeling, the consciousness of its own anomaly and thus rises above itself, to the *Norm* and the divine.

True knowledge and pure moral or virtuous disposition are thus available, in a reasonable, not metaphysical way, something divine and supernatural because they exist in accordance to the highest, the supernatural Laws, the *Norms* of thought and will. This also allows us to conceive what we must regard as the normal constitution of the mind. What usually passes for the normal state of mind is not separated by any specific line of the state of mental illness, to the point that it is often difficult to decide whether someone is sane or insane. Indeed, the natural constitution of the mind, the one we usually take as normal implies that we are still entangled in the natural appearance in the natural egoism based upon it, and conceals as a result much unreason and false judgments, something not essentially different from mental illness.

No doubt, we must not pretend to find in our world the perfectly normal constitution of the mind, because it belongs to God alone who is the only true substance.

We are, on the contrary, a part of nature that contains non-divine elements, that is to say, foreign to God or to the normal nature of things and, consequently, can never be free from anomalies. But, in the relative sense, the only possible one for us, there is a normal state of this mind that tends with all its might to the *Norm*, to the divine. In this effort, lies the highest personality and perfection of the individual.

We have gone as far as is possible into the essence of our self. Man is born without a proper content, like a sheet of white paper (1), and the highest

(1) For, even what is innate to the individual is not original and, therefore, is not unique to him but is the result of conditions.

-488- achievement of its individuality consists in the most perfect expression and the more particular of his personality, or rather in the highest generality, in the loss of all that is individual. For, our empirical self is based on an illusion and our true self, our essence, is in God to whom to distinguish between individuals is foreign. So we can say paraphrasing Scripture: "Whoever wants to find his self loses it and whoever loses it, finds the truth."

§ 6. Of the knowledge of other subjects.

The fact that we know, outside of ourselves, other living beings obviously supposes that living beings are in mutual relations. We must, therefore, consider those relations.

There are two facts in which they occur:

There are, first, to use the expression of Mill, opportunities for objective sensations common to all subjects, that is to say that all the subjects acquire in the same circumstances the same impressions and the same sensations. If, for instance, I look out my window, I always see the same objects in the street, I still have the same visual impressions. If someone is near me, he has similar sensations, and although we have both particular impressions and sensations, we think we know in our respective sensations the same objects in the street.

Should a change occur in these sensations without one of us having moved, this change occurs in the same way for both of us and we will not take it for a change in our inner states, but for a change outside. It is the same for the other objective sensations; so, it is clear that the reason of our objective sensations, the order in which they occur and succeed in us are the same for all.

Second, there are also between us, the subjects,

-489- causal relations; if, for example, someone speaks, I hear the sound of his voice; if he hits me, I feel pain, etc.

This means that the wills of other men regularly have, as consequences and, through an intermediary that remains to be observed, certain impressions and certain feelings in my self appear, in other words, as causes of these.

What should we think of this community of subjects?

The common opinion is that we are not in immediate relationship, that between us, the subjects, there are the bodies by the action of which we have the same impressions in the same circumstances and through which we can act on each other. This is an effect of the natural appearance that makes us see ourselves as related to the bodies and as separated from each other by a space. But, I have already sufficiently shown that the bodies of our experience are nothing more than our sensations and that the hypothesis of unknown things, existing outside of our experience explains nothing, but rather complicates as to render them unintelligible the facts to be explained.

We can all the better give up this alleged explanation, that things do not need to be explained, that it is enough to observe them. Between the subjects there are relations, that is the fact and nothing prevents us from admitting that these relations are of the essence of the same subjects. What need do we have to look for intermediaries? If we were ourselves substances, original beings, absolutely independent of one another, then it would probably explain our relations. But, it is not so. Although we appear to ourselves, in our ordinary consciousness, as substances, in fact we are beings who have started, who are subject to conditions, the existence and way of being of which, from one end to the other, depend on given antecedents

-490- in the world to which they are intimately united. Our relations are based in our selfsame nature. Induction starting facts can never lead to more than the finding of a link between these objects and phenomena: it is this connection that explains why the objective sensations in the same circumstances are the same for us all and why we have mutual relations. This seems impossible only if we forget, by the effect of natural appearance, to make abstraction of the bodies, to think that there is neither bodies nor space that separate us. We always assume ourselves as knowing subjects in space and we do not understand, then, how such matters can act on each other without a corporeal intermediary. But, space and the bodies, as we have proved, exist only in ideas, not in reality. The real objects of experience, that is to say ourselves, the thinking subjects and our sensations, we are not

in space and, as a result, we are not separated on all sides of one another; on the contrary, we are united together by the side inaccessible to our perception.

On this fact that the objective possibilities of sensations are common to us all and that we can act on each other, rests the possibility for us to know other subjects and observe their existence with certainty. This knowledge does not imply the actual existence of the bodies. (1)

(1) On the contrary, if we admit there exist real bodies, the reasoning that makes us conclude that men exist, to take it scientifically, is not rigorous. In accordance with the Law of the conservation of force, the effects produced in the bodies cannot have other antecedents or other causes than previous movements of other human bodies themselves. We would, therefore, have no right to explain the movements of other human bodies by the action of ideas and desires in them. We should rather, in the movements of other human bodies, as well as in those of inanimate bodies, see simple mechanical facts only conditioned by simple mechanical causes, and would thus be purely automatic.

-491- If bodies, in effect, or other things corresponding to them, really existed, they could never, as external things, fall under our perception; but, the reason to conclude that the existence of other beings like us resides in some changes in our inner states and our own perceptions. But, the knowledge of groups of our sensations as things in space, as a bodies, is very useful for our understanding of other subjects outside of us; for, without this projection outside of the perceived content, we would have no way to search outside of us the antecedents of our inner states and our perceived changes.

This is the subjective, indispensable condition, as the connection reported above between subjects is the objective, indispensable condition for our knowledge of other living beings.

On that basis, to conclude from certain changes in us to the existence outside us of other beings like us is to make a legitimate induction is confirmed by countless experiments. This is what Stuart Mill said on the subject:

"By virtue of what Principle do we know, or based on what considerations are we led to believe that other sentient beings exist? That moving and talking forms that I see and I hear, have feelings and thoughts, or, in other words, are intelligent? Even the most determined advocate of the intuition theory does not put this

knowledge among that which I owe to direct intuition. I draw it from some things that, as proved by my experience of my own sensitivity states, are its signs.

These signs are of two kinds, anterior and posterior, the necessary conditions of feeling and its consequences or effects.

I conclude that other human beings are sentient like me, first because they have like me a body which is, as I know it myself, the anterior condition of all feeling and, secondly, because they do accomplish

-492- acts and manifest external signs that are produced in me through feelings, as I also know from experience. I am conscious in myself of a series of facts which are invariably linked with each other, of which changes to my body form the beginning, my sensations the middle and an outer behavior the end.

For other men, my senses make me know the first term and the last of the series, but not the medium term. However, I see that the last term follows the first with as much constancy and regularity as in my self in these other cases. Now I know, when it comes to my self, that the first term produces the last only through the medium term and that it cannot be otherwise. The experience so compels me to conclude that there is also a middle term that is the same in others as in my self, or that differs, that is to say that others are living beings or automaton. And, if I take them for living beings, if I believe the middle term in them is of the same nature as in me who is, in all other respects, similar to them, I subject the other human beings, as phenomena, to the same generalizations that, to the extent of my experience, form the true theory of my own existence. And in doing so, I conform to the real rules of experimental research" (*Exam.*, p. 230-231).

Every question I address to another man, every action that I exercise on him, is an experience that confirms my conclusion on his resemblance to me. Because, the reaction that accompanies my action on him is precisely the kind I expect of someone who looks like me. And, thus, the existence of other men and usually other living beings, though concluded, is beyond dispute and has never been in doubt. (1)

(1) Descartes, indeed, regarded animals as automata, but he had been led to this conclusion by particular reasons connected with his philosophical doctrine.

-493- If, on the other hand, in some actions of inanimate nature, there is some resemblance to ours and if one concludes to a reason of these actions similar to that of our own actions, that conclusion goes beyond the experimental data. For, the power of nature reacts against our actions, otherwise than we would do ourselves or that beings like us would.



Chapter 2

Feeling and sensation

Science has two interests that often cross and contradict each other: on the one side to note and scrutinize the facts, on the other to explain them. It is clear that the desire to explain the facts often results in that we grab them mistakenly or falsely. To explain is above all to show in different facts cases or modifications of a unique fact. It is, therefore, in the interest of those who want to explain to overlook the differences between facts or hold them insignificant or secondary. And we see that this deceptive provision is especially manifest even in the observation and classification of internal phenomena. It was vainly remarked for long that one must distinguish in the essence of self phenomena of three kinds that can absolutely not be derived from each other, namely the ideas (usually called thoughts), the feelings of pleasure and pain, and the desire and the will, with the emotions and affections that correspond to it, such as fear, hatred, love, anger, etc., to which must be added, as a fourth species, sensations. The interest of anyone who wants to explain has always

-494- been to blur the view of the facts in order to derive them from one another.

So, some have wanted to consider ideas as mere modifications of sensations. I showed enough in Part One how it was wrong. It has also been sought with perseverance to derive from ideas the feelings of pleasure and pain, and that, indeed, in many ways. Some admit that the feeling of pleasure belongs to the consideration of "perfection" in external things, and the sense of pain to the contrary - it is the theory of Wolf. Others affirm that pleasure is born of the consideration of a "perfection" in ourselves, and pain of the contrary - it is the theory of Descartes. According to Herbart, feeling is "the condensed state of ideas"; the feeling of pleasureable and painful "are based on a fusion (of ideas) before the impediment, as the ideas of time and space on the fusion after the impediment" (*Psych, as Science*, II. p. 92-3).

It is remarkable how efforts to arrive at an explanation blind us to the simplest and nearest facts. All the theories in question are based on the ignorance of this fact, however obvious, that feelings of pleasure and pain are primarily physiological causes that reside in the

organism. For example, I prick myself with a needle and I feel pain. What has this pain to do with the consideration of some sort of "imperfection" either in me or outside of me, or with the state of my ideas?

If one considers that there is, as I have shown in Part One (Book Two, chapter 5), a profound mystery in the feelings of grief and pain, one cannot help but smile at these childish attempts at explanation. Because, one does not just explain the feelings

-495- by their physical causes, that is to say, their invariable antecedents; one pretends, by some invention, to uncover the essence of feelings.

Of all the derivations of the internal phenomena of one another, there is only one that is accurate and grounded: it is that from which is derived the effort and the will of the feelings of pleasure and pain. The will, in fact, is born of feelings, as I will show in a later chapter. Nevertheless, the will is not a mere modification of feelings. We must not, indeed, consider it a special power of the soul, but as a phenomenon *sui generis*, and we must beware of confusing it with other phenomena. It cannot be a question, in a general way, of powers of the soul, but only of internal phenomena of different kinds, and there are four kinds: the sensations, the feelings of pleasure and pain, the ideas and the will.

Neither can the ideas be regarded as mere modifications of sensations or any other object, nor can the feelings of pleasure and pain be derived from ideas or sensations. And, regarding sensations, we have always considered them independent of the other faculties of the soul, because they always have direct external causes, and even, as we know, they are themselves known as things of our experience.

We shall show, here, the relation of sensations with the feelings of pleasure and pain. This relation, if we consider the thing without prevention, can be conceived only as one of cause and effect in the ordinary sense of the word. Some sensations or combinations of sensations regularly have, in certain circumstances, pleasure or pain as consequences Absolutely in the same way that the excitation of a nerve results in a sensation and the appearance of the sun

-496- above the horizon during the day. If I may use a familiar comparison, I would say that the feeling and sensation behave almost like water and oil in a glass. They are united but do not mix. The

feelings of pleasure and pain are the proper states of the self; the objective sensations, on the contrary, are a content completely foreign to the self, which occurs near these feelings and often conditions them. It is as impossible to know something of the external objects by studying pleasure and pain, as to know anything of the true nature and life of the self by the studying the objective sensations of color, sounds, etc. As a general rule, the objective sensations are known as qualities of external things and different people think they know in their respective sensations the same things common to all, whereas our feelings of pleasure and pain have, it is true, a common cause, but never appear themselves as something common to all. Each of us knows, on the the contrary, from the outset, that his pleasure and pain exist only in himself and are quite distinct from the feelings of others. So, we see that feelings of pleasure and especially of grief and pain are always the same or at least similar, and differ from each other only by the degree of intensity, however different may be the causes that produce them. When the feelings of pain seem qualitatively different (such as burning, stinging, etc.), this only comes from the diversity of sensations that accompany them. So, this apparent difference can only happen for the feelings that come from corporeal causes. It is only then that there are accompanying sensations. The purely moral pain, on the contrary, is always qualitatively the same, should it result from the loss of a loved one or a suffered injustice, or

-497- at the view of an evil suffered by others, or any other intellectual cause.

But, the sensations also have become tributary to the mania of explanation. There are many kinds of sensations and many differences between them; a visual sensation, a color, has nothing in common with a sensation of hearing, a sound, and this in turn quite differs from a smell.

Moreover, the colors, sounds, tastes and odors are of very diverse nature. Those who want explanations cannot admit it quietly: they seek to make these differences illusory by deriving them from a common Principle, especially as Science provides a very attractive example.

Research by Physiologists on the conditions of perception have in effect led to the result that many things we thought were simple are due to the combination of multiple elements, and that the state, the associations of ideas of the subject have a significant influence on the

way a given quality appears in perception. From the fact that we have reduced, in the material conditions or causes of sensations, all differences to purely quantitative differences, at more or less high speeds, at lengths or amplitudes in the oscillations of corporeal atoms, we also want to simplify the qualitative diversity of sensations, and explain it by quantitative relations. For example, Spencer and Taine want to derive the full diversity of sensations from one single psychic element and thus believe they go in the direction of scientific research. But, this is to thoroughly ignore the essential difference of the state of things in both cases. In the material world, we can well - and we already do - conceive everything and explain it as purely quantitative, because the material world contains no real qualities and, therefore, does not contain a diversity of qualities. But, it is completely different in

-498- the world of sensations where everything is quality and qualitative difference. To quantitatively explain the difference of real qualities, would be to demonstrate that it does not exist; so this is an impossible task.

It is true that a regular succession of sounds, if it has a certain speed, gives a musical sound whose height increases with speed; but it does not follow that the musical sound itself consists in these sounds, is a pure combination of them. It is true that various blends of color give white; but it does not follow that the white color sensation itself is a simple combination of other color sensations. The quality of white, or the white color, cannot be a compound; it is absolutely simple.

Similarly, water is composed of hydrogen and oxygen, but nobody will say that the water quality is a compound of the qualities of its elements. The qualities are, as to their essence, absolutely irreducible. If something qualitatively new happens, it may be feasible to establish the conditions of its appearance in what is given, or in the past; but what is new in its special qualitative property cannot, obviously, be derived from what is given, precisely because it is something new, and is not something already to be found in these conditions. To derive a real qualitative difference from combinations of the diverse, is thus to try to draw something out of nothing.

Chapter 3

Will

§ I. Origin and nature of the will.

We shall now examine this question, whether the feelings of pleasure and pain are a consequence of

-499- our will and our activity, or if, on the contrary, there is in these feelings the reason of the will and the activity of the self.

The hypothesis that pleasure and pain are essentially consequences of the will or any activity of the self may well be contrary to the facts, it has nonetheless found famous defenders. In Germany, it was Schopenhauer who wanted to derive the feelings from the will. They are, according to him, the result of an action on the will; this action "is a pain when it is in opposition to the will; it is well-being, pleasure instead, when it conforms to it " (*The World as W. and R.*, I, p. 120). Pleasure and pain are "immediate affections of the will in its phenomenon, the body: a will or non will forced, instantaneous, of the impression it suffered." But, one cannot, in general, trust the many affirmations of Schopenhauer, because they come more often, not from a purely academic interest or a careful, unbiased study, of the facts, but from some preconceived hypothesis. He has the fixed idea that the will is the Principle of all things; it must also be the Principle of feelings; we do not find in his works a better reason to justify his affirmation. With his usual negligence, he did not fail, even at this point, to contradict himself. He says, for example, and with reason: "Every will arises from a need, hence of lack, hence of pain." (I, p. 230).

And in another place: "By this that all will, as such, is born of lack and, therefore, of pain..." (p. 429).

But, on the same page, he resumes his antiphon: "Pain is not anything other than a will unfulfilled and frustrated, and even the pain of the body, if it is injured or destroyed, is possible only, as such, because the body is not nothing else than will become object." Thus, according to him, all will comes from pain and all pain from the will.

-500- Hamilton [Sir William Hamilton (1788-1856)] defended in England a theory related to that of Schopenhauer. "All pleasure, he says, is the result of the free play of our faculties and our abilities. Any

pain, on the contrary, their repression or their forced activity.” (Quoted by Stuart Mill, *Exam.*, P. 530). Mill, on the contrary, simply cited the fact that the taste of sugar has consequently a pleasant sensation, that of rhubarb an unpleasant one. By what sophistry could we discover in the taste of sugar something that favors the will and in the flavor of the rhubarb something that thwarts the will, or any faculty or ability of the self? The obvious fact is that the feelings of pleasure and pain are the Principle of all effort and all will. Moreover, the relation between feelings and will is, in our experience, the only case in which from the nature of the antecedent the result can be anticipated *a priori*, which does not mean that we have an *a priori* knowledge of our feelings and their effects; here is, rather, how we must understand this.

We immediately feel pain as a state that cannot last as it is, but implies the need to destroy itself, to change into another state (not painful), and we immediately feel pleasure as a state which not only does not imply the inner need to destroy itself and change, but contains a reason to assert itself against any contrary influence. But, as pain cannot destroy itself, because it is an effect of foreign causes, that is to say, the invariable result of certain antecedents totally different from the sentient subject - we can foresee *a priori* that a sentient being must necessarily strive to remove the causes of his pain or deploy an outside activity. Similarly, a pleasure cannot immediately affirm itself against the contrary actions, because their being or non-being depends on causes or

-501- external antecedents. We can thus, according to the nature of pleasure, predict *a priori* that a sentient being should strive to make the causes of his pleasure last as long as possible, or, if they are missing, to provoke and to realize them. We call pleasant the causes of pleasure and unpleasant those of pain. The attraction effected by the former on the sentient subject is called desire and the repulsion generated by the latter is aversion. We see how and why desire and aversion follow from the nature of the feelings of pleasure and pain. But, desire and aversion form the will or are at least elements of it; they represent the inner effort that forms the germ of all will. The will is, therefore, an effect of feelings.

In reality, is it not a fact beyond doubt that all will is born of displeasure and has pleasure for its end? And what are pleasure and displeasure, if not feelings? To say that the will exists before the feelings, is to say that the tendency of a state to change is even before

the state which is trying to change. This is another domain the same as if we said that the attraction of the bodies was prior to the bodies, that bodies or their component elements have attracted before existing, and more, that their existence has been the result of this attraction. As meaningless as this last statement is, it has had, as we have seen, its defenders and these were not the least among philosophers.

I want to mention yet one paradoxical opinion of Bain [Alexander Bain (1818-1903)], whose criticism can serve to clarify our object. We have seen that pleasure, as long as it is not disturbed, contains no reason for effort or action, but that it is pain or grief that shakes us. Bain says, on the contrary, that "pleasure leads to action, and that pain tends to stop the movement" (*Obs. On James Mill's Analysis*, and also

-502- *Mental and Moral Science*, p. 322). Moreover, he says even more clearly: "The actual moving force of pain is not the state of pain itself, but the hope to free oneself from it, and in thus freeing oneself is a kind of pleasure." (1) This doctrine originates in that Bain considered rather the facts of physiological experience than psychological facts. We see, in fact, that, in pleasure, beasts and animals often agitate much, while when they are injured or sick they stand as much as possible at rest. But, in the first case, they are agitated, not because they are happy, but because the movement contributes to the conservation and increases their pleasure. And in the other case, it is not pain that is the cause of immobility, but the fact, on the contrary, that the movement increases the pain. When one experiences a pleasure in conservation, and movement does not contribute to the increase, we see a perfect stillness happening, as when we admire a beautiful landscape, when we hear beautiful music (except dance tunes, because then the beat movement of the body further increases the pleasure), when we take a hot bath in the kief of the Orientals, and in similar cases.

On the contrary, when the movement does not make pain sharper, we struggle to eliminate the cause of evil, we scream, we do everything imaginable to relieve pain.

The affirmatiou of Bain, therefore, is based on a misunderstanding. (2)

The particular spontaneity of which we are conscious precisely distinguishes itself from the activity or causality of inanimated

(1) We must, instead, say the opposite: pleasure can push us to act in the measure that is regretted, that is to say as much as its absence is a condition or cause of displeasure. A pleasure that through ignorance or otherwise is not regretted is neither sought nor desired.

(2) Besides, Bain himself, in another place, spoke well when he said: "The pleasure drives one to act to make it last, and pain, to stop it" (*Sense and intell.*, p. 4 & also p. 34).

-503- things in that it has its reason in ourselves, in our feelings. We ourselves have, not unconditionally, but, as explained, only under certain conditions, the need, the tendency to change our own states and, therefore, the states of other things. This results, as we have seen, of the nature of certain states within us, while from the nature and state of an inanimate thing, we can never see why this state would contain a reason to change. (1)

The causality of external things is from no point of view based on their individual being, but rather only in the acting Principle of nature that binds all things and that we call force. For example, one cannot find in the individual being of a body why it tends to fall toward the center of the earth, it being gravity that binds all bodies together. An apparent exception is the tendency of a body moved to continue to move, because this tendency is outside any relation to other things: But, careful observation teaches that the apparent exception rather confirms the proposition outlined above. If we consider at any point of its course a body in motion, it is clear that the same state has the need not to stay at this point but to always move to other points in space. But, what is the reason for this tendency in the body itself? This is not a spontaneity, but its opposite, inertia. The body in motion tends to change place not because its condition contains a necessity to change, but rather because of itself, without an external cause, it can introduce in itself no change and must always remain identical

(1) There is no contradiction here, however, with what has been said before: Our own causality, as such, does not differ from that of inanimate things. For, if we have an inner need (because of the feelings of pain and pleasure), we have no inner ability to produce change outside of us.

-504- to itself. As soon as in the state of a body in motion a change occurs, for example because it is struck by another body, one cannot say *a priori* what will be the result or the effect of this change because the Laws of the communication of motion do not have their own

Principle in the individual essence of the bodies but in the general uniting Principle in which their relativity impers.

Spontaneity, the tendency proper to the living being consists, therefore, in that this tendency has its Principle in the feelings of pleasure and pain. Thus our will distinguishes itself from the energies of inanimate nature. Thereby also, we understand the high significance of feelings. They are, in fact, the center of gravity of our being. (1) If we were not able either of pleasure or pain, all would be perfectly indifferent to us; we would have no tendency to desire and to do anything. All the moral side of our being would be cut off and our intellect itself reduced to a mere mechanism whose workings would be subject only to external Laws of motion. The intellect too, it is true, has a spontaneity, but it does not consist of an inner impulse to be proved; it consists of inner Laws that determine its function, if it is once put in motion and maintained by any cause. This case actually occurs in newborn children, in whom there is still no link between ideas and feelings and who cannot, consequently, control the course of their ideas. Everything happens in the intellect of children, ideas are produced and reproduced, associations formed, and the knowledge of objects begins without their participation,

(1) Though the pure mechanism of the self as a knowing being - knowing itself has its center of gravity -, as we have already shown, in the thinking part, that is to say in the knowing subject.

-505- only by external impulses, following the excitement of sensitive nerves and the Laws of association, in a way all mechanical. That the *a priori* Principle of thought is involved, does not change the mechanical nature of this function, because the *a priori* Principle of thought acts *before* any reflection in the manner of an instinct.

Children learn, therefore, many things without effort or fatigue, because their intellect works mechanically, as the heart muscles which know neither effort or fatigue.

Instead, we operate in wakefulness states a continuous control over the course of our ideas. Always, at the front of the stage, something interesting occurs that arouses attention, fixes it, that is to say, brings about the effort to put in the succession of ideas the desired order. But, feelings are at the bottom of all interest. The pure intellectual interest in the acquisition of new knowledge and the discovery of new truths is

inconceivable without pleasure and pain. These feelings are also real reason of all the major works of the human intellect in science and art. We must, therefore, not believe that a "pure intelligence" without admixture of feelings, would be something higher; it would be, rather, a pure machine. The pure intellect, that is to say, the pure idea, is already in its nature something subordinate, because its whole function is to represent or reflect other things.

§ 2. The Laws of the will.

On this fact that the tendency of the living being has an internal reason, lies another property of causality that distinguishes it from the causality of inanimate things, namely to have ideas for intermediaries.

The reason for the tendency and the will of the living being is, as we have seen, the presence in it of states, which cannot

-506- remain identical to themselves, which contain the need to destroy themselves or change into other states. Pain, displeasure are such states. But, it is obvious that the tendency of a state to destroy itself can immediately bring only pure inner change, namely the passing of this state to another. As its reason, the purpose of the tendency of a living being is contained in himself, in his feelings, and so can have no direct relation with external objects or causes. Our displeasures may be, it is true, produced or, more precisely, brought about by external causes, but their own tendency to change may have no external cause and consequently no direction, no relation to the outside. If, on the contrary, the subject has an idea of the external causes of his feelings, not only can he, but he must seek to influence them. He understands, in effect, that his purpose, that is to say the desired change of internal states, can only be achieved by acting on their external causes. But, the result is that the external causes cannot move a living being but through his ideas, that is to say in the form of patterns and the causality of such a being has, likewise, for intermediary ideas, that is to say, must be an action towards a goal.

The action of external causes on the feelings, on the internal states of a living being, occurs, it is true, without the intermediation of any idea, and the subject, in the case this influence is unpleasant, is moved to action. But, the direction of his activity is not determined by external causes themselves but by the idea that the subject has of it. If there is a misconception of the causes of his states, he is wrong in his conduct.

Then, indeed, he seeks not to act on the real causes of his states but on things and facts that he takes for these causes. Thus, a patient often has recourse to remedies

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that may but aggravate his condition, in the belief that they will serve him to put away his disease.

With this fact that external causes cannot move the subject but by means of his ideas, is also given the possibility that he be moved not only by present causes, but also by expected causes, feared or hoped for. Causality of a living being, thus, takes on a character quite different from the causality of inanimate things. And, this has greatly served to make believe that human behavior is not subject to causality. Because of the relation between human actions and external causes is not immediate and direct, as the relation between physical causes and effects, but has for intermediary ideas or opinions that we form of things, that these ideas are not always known to other men and often we are not clearly aware of ourselves and they can still thus change; finally, that all men do not act the same under the influence of the same reasons and the selfsame subject does not always remain identical to himself in the same circumstances - it is clear that human actions do not also invariably follow, as immediately, the motives the way physical effects follow their antecedent and it easily gives the illusion that human actions are not subject to Laws. But, we obviously cannot admit that human actions are in fact not subject to any Law because we cannot conceive a violation of the Law of causality. The actions, to consider them in their totality, follow their given antecedents as fatally as any other natural phenomenon. Here are some remarks about the Laws that govern human behavior.

The fundamental Law of the tendency and behavior of all living beings is by nature invariably determined by the nature of the states from which arises all tendencies themselves. These states, as we know,

-508- are the feelings of pain and displeasure because these states naturally tend to destroy themselves. The fundamental Law of all will is thus to flee pain, displeasure and, therefore, to seek the opposite of pain, that is to say pleasure. The feeling of pleasure that contains in itself and for itself, immediately, as we have seen, no reason for change, for activity, becomes, thanks to ideas, a cause of action, while the subject is pushed by the idea of a pleasure he lacks to produce or

bring to himself. Pleasure and displeasure are thus specific motives, because they are internal of all will. A living being cannot possibly be moved other than by an influence on his feelings or by the idea of such an influence.

But, the existence of a living being is linked to the existence of a bodily organism which depends on multiple conditions and these conditions must be produced or brought about in part by the action of the living being himself. For this, the need for specific Laws of the will in the living being becomes manifest. It follows clearly, first, that the fundamental Law of a living being must be the preservation of oneself, because the existence of the living being is precisely the necessary condition for all other qualities of all its Laws. But, in the nature of a willing being, there is no immediate inclination to self-preservation. On the contrary, any will, any tendency arises, as we have seen, from states that cannot last, that have rather a tendency to destroy themselves. Thus, the tendency to subsist should be taught especially to the living being; and, as this being can be moved but by an influence on his own feelings, the tendency to self-preservation must be grafted on feelings. This result is achieved by the fact that the idea of his annihilation inspires fear to the subject, that is to say, it causes him a painful feeling.

-509- In the thought of our own annihilation, there is no reason for an innmediate fear or a painful feeling.

For, if the non-being has nothing painful, the anticipation or the idea of non-being cannot be painful, either. The fear of non-being is, therefore, not a proper, primitive Law of the willing being, but it is implanted in him, it is based on a natural illusion. We understand its necessity, not by the inner nature of a willing being, but the conditions of his existence in the empirical world.

But, the fear of non-being is only the negative side of the tendency to self-preservation. It forces the living being to escape all the dangers that threaten his life, but not immediately to fulfill all the positive conditions of its existence. This last goal will be achieved by another influence on his feelings manifested in its needs. Things are so arranged that the observation of the conditions necessary for the conservation of the living being, that is to say the satisfaction of his needs, is pleasant to him, and non-satisfaction unpleasant and even painful. Thus, the living being is inclined to preserve and conserve his species by generation. Hunger, thirst, love of children and parents, are

these primitive tendencies without which the animal world could not exist.

As these tendencies exist prior to any pleasant or unpleasant experience of external effects, their presence in us has contributed much to bring credibility to the false opinion that feelings of pleasure and pain are themselves a consequence of these tendencies. I have already shown how this theory is untenable. If the tendencies were independent of feelings, one might wonder what would be their use.

Because, living beings could be driven directly as inanimate beings, and led to all the ends they need to achieve. But, it is precisely in this that the great

-510- difference consists between living beings and inanimate beings: the first contain in their inner states themselves the reason for their change and cannot be moved but by an influence exerted these states. Animals would not seek their food, if the lack of food did not cause them any suffering. They would not mate, if the need to do so had not its root in the painful feeling of the lack, or the anticipation of pleasure which arises from the satisfaction of that need. Moreover, if we want to judge by the Principles of experience, we should only resort to the human experience, which alone gives immediate access to the internal states of the willing and acting subject.

So, we see that a living being should be subjected to a complete system of natural Laws that determine his will. These Laws, together, aim to preserve the individual and the species; the most rigorous selfishness makes it the main tendency that produces in nature a general struggle for existence. But, we have seen that the individuality and plurality of objects is foreign to the essence of things and, therefore, is something abnormal. It is conditioned by an illusion. On this illusion is based not only, as we know, self-consciousness, which is the necessary form of individual existence, but also the system of tendencies that serve to the preservation of individuals and species. It is, therefore, understandable why man does not see in the Laws of his empirical nature the normal Laws of his being, the true *Norms* of his will, and does not seek his freedom in the satisfaction of his natural tendencies. Freedom is the will and the behavior according to Laws that are rooted in our own nature; now, empirical nature is not really the very nature of things and, consequently, the submission to the Laws of nature is not freedom but, on the contrary, slavery, heteronomy, the dependence on foreign Laws

-511- of movement and determination. Also, is it not selfishness, which form the empirical fundamental Law of the individual and which conditions his individuality, but the opposite of selfishness, the moral Law which is the true *Norm* of our will and the Law of liberty?



Chapter 4

The idea considered as real fact

In a chapter at the beginning of Part One, I have carefully examined the nature of the idea. This chapter can serve as an introduction to those that follow. I think I have established, in particular, that the essence of the idea is that it is not what it represents, in that it contains the affirmation of an object different from itself, the belief in the existence of this object.

We must, therefore, distinguish in the idea two sides, one ideal and one real. One can indeed consider in the idea first what it is itself in itself, as a real fact, regardless of what is represented in it, this is the real side of the idea. But, we can consider, secondly, the idea according to what is represented in it and the manner it is represented and this is the ideal side. The functions and the Laws of the idea are on each side, of different nature.

The functions of the idea, under the real aspect, are receptivity, reproduction and the association of the produced content. The Laws of the idea in the real aspect are physical in nature, namely the Law of causality according to which objects produce it, and the Laws of association.

The functions of the idea under the ideal aspect are: judgment,

-512- reasoning, recognition, as a special case of reasoning, or recognition of the past and, finally, generalization.

Every thought, every knowledge as such, consists in these functions. The Laws of the idea under the ideal aspect are not of a physical nature but logical, that is to say are not causal Laws, but Principles of affirmation and negation, reasons for believing and not believing. It is clearly undeniable that the physical Laws of the idea have an influence on belief, but they are not its proper Laws. The action of the causes and the physical Laws on our belief or our conviction is rather the reason of all errors, of all heteronomy of thought.

Let us first, but briefly, examine the real side of the idea. A longer development of this subject belongs to Psychology.

The first property of the idea as a real fact is that it is the effect of objects, but an effect that looks like, as to the content, his cause. This is what we mean when we call receptivity of ideas their production by objects. Here is, in effect, in what consists the production of the idea by its object: to the appearance of a content in the immediate object (which is always, as we know, a sensation) invariably follows the appearance of a corresponding content, that is to say alike, in the idea. But, that to the appearance of this content in the idea is linked the affirmation of the object, the belief in its existence - is under no perspective the effect of the object, it is no more a physical fact, neither the pure effect of such an act; it is an act of a very particular species, that has its reason in the nature of the idea itself and constitutes its ideal side. We do not have to consider it further, here.

The second property of ideas as real facts is their wonderful property of being reproduced in the absence of objects.

I have seen, for instance, a city several years ago, Paris,

-513- if you will, and I have not been back since; nevertheless, I can remember many objects that were there when I was there, that is to say, I can again, in any way, make present to myself the impressions I then received. - This property already forms an impassable barrier between the idea and sensation. If we only understand by ideas the ideas reproduced and if we see in them only reproductions of the same sensations in a weakened form, even as the Sensationalists do, one falls into all the absurdities involved in the confusion of ideas with their objects, even as Reid has highlighted in his polemic with Hume.

Because, the sensations are absolutely not reproduced. What the Sensationalists take for reproduced sensations possesses properties that are entirely unrelated to any sensation and, generally, to all that is purely objective.

But, to all sensation in us corresponds a similar idea and the latter is afterwards reproduced in the absence of the sensation and the causes of the sensation. Obviously, there is also in us sensations to which no idea corresponds or of which, in other words, we have no consciousness; but, those ones we cannot remember, they are not reproduced. The presence of these kinds of sensations can only be inferred, indirectly known.

On the reproduction of ideas are based two facts, 1. The possibility to remember the past, and 2. The possibility to combine several ideas in

consciousness. The knowledge would obviously be impossible without it. We do not ask what the reasons or causes of the reproduction of ideas. We do not want to know if, as taught Herbart, the effect of an elasticity proper to the ideas which always tends to push them back into consciousness, or whether, as claimed by the Materialists, it is conditioned in the brain by the traces of old perceptions. We have no

-514- right to attribute to ideas such an elasticity, because experience offers us nothing of the sort and, against the materialistic hypothesis, we will quote the remark of Stuart Mill (*Log.*, II, p. 435) " that there is an indisputable uniformity of succession between the states of mind and that it can be evidenced by observation and experience." That the reproduction of ideas has or has not antecedents in the brain, it is indifferent to us, because the reproduction Laws are based on the ideas themselves. To discover the Laws, this only has a scientific interest and for this we do not need to take the brain into account. Only the pathological states of mind must necessarily be examined in conjunction with the states of the brain. (1)

As long as ideas are produced immediately by present objects, they are subject in their appearance and succession to the Laws of objects whose discovery is the task, not of the theory of knowledge, but of Science. On the other hand, as the ideas are not produced by these objects and they are simply reproduced, their appearing in consciousness cannot be conditioned but by the presence of other ideas in consciousness and suppose, consequently, something common, some connection between them and those other ideas. This is what is generally called the association of ideas. The Laws of reproduction are, therefore, the Laws of association of ideas.

But, ideas can have in only two ways something in common between themselves: this community can only be, 1. The similarity of their contents, or 2. The

(1) The affirmation that the relations between our inner, psychic states are conditioned by material phenomena, namely the brain, implies the negation of the only immediately certain facts of the inner life itself.

-515- presence of this content in a consciousness, that the objects of these ideas be presented together or at different times. There result two fundamental Laws of association or reproduction of ideas: 1. The

association by resemblance, 2. The association with what the English call the contiguity of ideas. This means that an idea present in a consciousness has a tendency to bring back into consciousness the previous ideas that resemble it and these, in turn, tend to remember other ideas with which they were formerly in consciousness and that with so much more ease that they coexisted more often. The strength of the association increases with the repetition of the encounter. (1)

There is no doubt that these are, indeed, the Laws governing the succession of ideas in our consciousness. However, it should be noted that the strength of the association depends not only on the frequency of repetition, but also on other circumstances, namely the vividness of first impressions and, above all, the extent to which ideas interest us, their relationship ultimately with our feelings of pleasure and pain. What adds to our

(1) On the association by contiguity, a clarification is needed. As all perceptions are successive, two ideas cannot coexist in the consciousness but as a result of their reproduction. It is, therefore, impossible that the reproduction be based on the fact, alone, that these ideas or others similar have previously encountered in a consciousness. Because, reproduction is also conditioned first by another circumstance, namely, I think, by the continuity in the succession of ideas. In the early perceptions of a child or a young animal, when, for example he sees a body from one end to the other, previous ideas recur in the progress of the perception as a consequence of the connection that they have with current ideas by continuity. This connection is weak, it is true, and is growing by more frequent repetition and by association takes on more consistency, but it is enough to make possible the reproduction of ideas before their association, reproduction without which no association could form. An idea will undoubtedly be more easily reproduced that we will have had it less time before. For this reproduction, any reason, any excuse will suffice.

-516- wellbeing or our ills especially persists in our consciousness and always shows on the scene again, despite all contrary influences. It is on this that lies the remarkable fact of attention, which is that the predominance of a given interest gives the course of the ideas one determined direction and that the ideas mostly reproduced are directly or indirectly related to that interest. Everyone knows how difficult it is to fix one's attention to an object that does not interest us, how absorbing, on the contrary, is an exceptionally interesting object. Without this dependence on our interest and our will, therefore, no control over the course of our ideas and, thus, no thought, no

thoughtful conduct would be possible. Thereby, is also explained why the same objects awaken in different men ideas so different, according to the relations with their different interests; why, for example, the view of an object excites in some aesthetic considerations, among others utilitarian ideas, among others, finally, military or scientific ideas. Besides, there is undoubtedly also personal qualities that condition the kind and strength of associations.

Through the influence of interest on the production and fixing of the attention is also explained the fact that we ignore much of what happens in our consciousness, although it is an inseparable part of our ideas. Helmholtz (*Popular lessons*, 1 vol., p 82) observes: "In this respect, we are all committed supporters of the practical utility, more than we think. Any sensation that has no direct relation to external objects, we usually tend, in the ordinary use of the senses, to ignore it completely and we first note it in scientific research and also in diseases where our attention is mainly focused on the phenomena of our body."

-517- Helmholtz gives as an example the flies flying before the eyes, the blind spot, the fact that all objects, when not fixed upon, seem double, which we do not ordinarily are conscious of and other similar cases. English Psychologists call this the Law of *obliviscence*. Stuart Mill (*Exam.* p. 310), said on this: "Can we, when we put a book aside after reading it, remember the consciousness we had of characters, printed syllables that succeeded before our eyes... But, each of these characters have been like a present impression to us, otherwise we would not have understood the meaning they are supposed to indicate. But, as the meaning is the only thing that has concerned us, we have received no impression of the characters and syllables." The association between words and thoughts they express themselves has formed by a sufficient repetition. Consequently, one necessarily call the other in consciousness. But, as we consider the meaning only, the words vanish for us after their work in consciousness and leave no trace of their individual qualities.

The strongest reason for the association, from the theoretical point of view, is the sufficient repetition of the encounter of similar ideas in consciousness, or, as the English Psychologists say, the contiguity of ideas. Because, on it rests, not our scientific inductions, but all our habitual inductions, without which we cannot take a step, literally or figuratively. These ideas must of course have a more frequent

encounter of objects which, in reality, are related to each other. It follows that the association thus formed and that forces us, when we meet an object, to infer the presence of another which is often seen at the same time and leads us to accurate inductions. The frequency of the encounter is certainly not

-518- always, far from it, the proof of a permanent link in the objects – also, even in ordinary life, do we often control our inductions from experience; - It is however, in many cases, actually the consequence of a connection of the objects and allows our conclusion of an object to another.

As everyone knows by an intimate experience, even the mere perception of an object contains a lot of inductive conclusions, which are possible only as a consequence of the association by contiguity and are governed by it, but of which we are not ordinarily aware.

But, receptivity, reproduction and association are the only functions of the idea on the real side. These functions depend on memory and imagination. We will deal later with the functions of the idea on the ideal side: I just want to consider one now, because it will not find a suitable place, later, and it is recognition, the recognition of the past.

Kant, in the first edition of the *Critique of Pure Reason* (pp. 663-664), said the following about recognition: "Without the awareness that what we think is precisely the same thing as what we have previously thought, all reproduction in the series of ideas would be useless ... If I forget, in counting, that the units that float before my senses were already added by me together, I cannot know that this successive addition of unit to unit form a quantity and, consequently, the number; because this concept consists only in the consciousness of this synthetical unit." But, this is not the recognition of the past, because the very awareness of the past is not something primitive, but rather concluded, derived. In so far as the ideas are actually present in my consciousness by reproduction, I do not know at all, first, that they are merely reproduced. By counting, for example, I do not think immediately that I added units to units: for I

-519- do not think about my action of counting, but about the object or the product of that action, the sum I want to see. And, for this, it is indifferent to me that the counted units are actually perceived or simply reproduced in my mind. This is even more evident in the case of perceptions that have not as determined a goal as when counting.

When I look at an object and the ideas of the parts I perceive reproduce, one after another, in my consciousness, it does not come to my mind that the reproduced ideas represent the same thing as what was perceived the instant before, because I am not aware at all of this difference between the reproduced and the perceived. It is only when the earlier perception of an object is separated by a time interval of the current perception, during which I have not thought about the subject, that it can be a matter of an actual recognition of this object. On this recognition, I shall only make the following remark.

We are usually willing to admit an immediate recognition of the impressions and the selfsame ideas we previously had and deduce from it the recognition of previously perceived objects. In reality, things are quite the reverse. It is the objects that are first recognized, not the ideas. We already see clearly by the fact that the consciousness of the ideas, as such, is much later than the consciousness of the objects, without which no idea in general can exist. Imagine that I today see an object I have already seen yesterday. Brought to this view, the idea that I had yesterday of this object is reproduced in me and so I have, at the same time, two ideas. First, you wonder, how can I identify them, that is to say recognize that both represent the same thing; and, second, how I realize that one is the idea of yesterday, the past idea, while it is, however, in me now and at the same time as the other.

-520- Do we take the ideas for real phenomena simply, or objects which, in their essence, have no connection with a reality different from them, - the identification of two ideas can only be their fusion into one. But, with this fusion of ideas, the recognition would not be possible. For, the recognition supposes the distinction in the consciousness of the present and the past, which can have its fulcrum only in the difference of ideas. But, if the two ideas are not confounded, they are precisely two, not one; it is, therefore, not possible for me to recognize one in the other, since it is in my consciousness at the same time as the other and differs from it. If we understand, however, that the subject is not conscious, primitively, of his ideas as such, but that he immediately recognizes and affirms objects in the content of his ideas and that is precisely the essence of the idea as such, then the possibility of recognition is clear.

A succession, a distinction of the present and the past, may, as we have shown, come to consciousness, just because we refer to the same

object, remaining identical, successive states. Now, if I have an idea reproduced that resembles an actual perception of an object and more so with such a reunion of individual signs that does not belong to the general essence of a whole kind of things, then a recognition occurs, that is to say I remember having already seen, once, the individual object that I perceive now and, if the reproduced idea brings back with it by virtue of the association of ideas, others I had at the same time, I remember the time and place, the circumstances in which I have seen this object before. For example, it is not as easy to remember such a sheep than such dog, because in sheep specific characters dominate, and that the individual characters are so much less marked that they do not

-521- make an impression and do not engrave in memory. If, however, I saw a sheep with a particular sign, I can easily remember it and recognize it, because it distinguishes in this from all other animals of the same species.

For, the recognition of an object to occur, the following conditions, as shown, are required:

1. The reproduction of a previous perception, which should not be confused with the current perception;
2. The property of ideas to refer their content to objects or to assert it of objects;
3. The identification of the object of the reproduced idea with the object of the current perception, although both ideas themselves are different from each other, which identification is based on the awareness that such a reunion of individual signs, that simultaneously shows in the reproduced idea and the actual perception, does not belong to the general character of a kind;
4. The primitive certainty of the thought that an object cannot be different from itself; and finally,
5. The explanation of the difference between the reproduced idea and the actual perception of the object, based on the fact that the first is the prior perception of the same object, according to the reasons I have outlined.

Chapter 5

Judgment

§ 1. What is Judgment?

As defined by Logicians, judgment is a comparison of ideas and concepts, as well as words. If we had not found, if we did not know the true

-522- theory of judgment, we could accommodate this definition as a first attempt. But, it is not so. Since a long time, some thinkers have seen very exactly that judgment is not a comparison of ideas, but a statement that deals with objects and real facts.

Thomas Reid, in his *Essay on the intellectual faculties of man*, has very well presented this theory (VI, Chapter I), and, in our time, Mill expressed it even better and with more developments (*Exam.*, Chapter XVIII). But Logicians have not been paying attention, and for them, as before, judgment is only a comparison of ideas. There are judgments, it is true, which relate only to the content of ideas, without containing an affirmation of objects: they are analytical judgments; but it would be wrong to define judgment from those, because they are something subordinate, neutral and of no use in the reasoning.

I shall not repeat what others have said very well. To demonstrate this truth that judgment is the assertion of objects and facts, I refer to the works mentioned above, Reid and Stuart Mill. The essence of judgment does not consist in the form of the expression, but in the belief in the reality or the truth of what is expressed.

In the chapter of Part One of this work, which deals with the nature of the idea, I showed that the affirmation of the object represented, the belief in its existence is the essence of the idea (under the ideal appearance), that it is an original quality, it is an immediate fact. The mind judges, therefore, as soon as it exists, for judgment is precisely the believing affirmation of the represented. Judging is precisely the simplest form of intellectual activity, the most basic act of knowledge. That judgment, affirmation, belief do not necessarily need words, we have long noticed, and it is actually manifest. If, for example, a dog

-523- approaches when we throw it a piece of bread and flees when we cast a stone, is that it believes that the first object will have for it

pleasant consequences and the second unpleasant ones. The dog believes in this and many other things without being able to express its belief in words.

So far, I have spoken only of the affirmation and I defined the judgment as the affirmation of an object or fact, and not without reason, formal logic, it is true, must put on the same line affirmation and negation and, consequently, distinguish affirmative judgments and negative judgments; but, it is not the case for the theory of knowledge, because only affirmation is primitive and underivable; negation, on the contrary is derived; it is the conclusion of a reasoning. We cannot be conscious that something (represented) is not, but by reasoning; I showed it for the consciousness of the past in this Part Two, and that of falsity in Part One. The only negation that is not derived is the knowledge that a given object is not like any other, that is to say the knowledge of the difference of given objects. But, knowledge and recognition of the difference should not be considered a pure negation of similarity or identity; because, the denial of identity is necessarily always the same and unchanging, while the differences and, consequently, knowledge of these differences are very diverse. It is only as the judgments serve in reasoning that affirmation of a difference has the same meaning as the simple negation of similarity or identity. Because, insofar as any affirmative conclusion is based on the finding of identity or similarity of the data expressed by the predicates, any negative conclusion is based on the simple negation of similarity or identity, that is to say on finding of the non-

-524- identity or difference of the data in question. What applies to a house, applies neither to a tree, nor a mountain, nor a bird. Although a house differs quite otherwise from a tree as from a mountain or a bird, it is another matter, though, to conclude from the qualities of a home to those of a tree, or those of a mountain, or those of a bird, as there is here a simple negation or limitation. The difference is then considered only as a simple non-identity, such as a lack or denial of identity. Formal Logic, which outlines the theory of judgment in relation to that of reasoning, should consider any observation of a difference as a simple negative judgment.

The affirmation of the object, the belief in its existence is thus the primitive fact, the underivable property of the idea, which constitutes its ideal or logical nature and distinguishes it from any simply objective, physical fact. Thus, the Laws of the idea, as ideal, are not

physical Laws, but logical Laws, reasons to believe, Principle of affirmation. The primitive Law of the idea, on the ideal side, the most general Principle of the affirmation is, as demonstrated throughout Part One, the necessity that lies in the nature of the idea to conceive any object itself, in its own being, as identical to itself and to so affirm. Without this Principle, no knowledge, no affirmation, no judgment would be possible. Kant taught with reason that the assertion of the existence of the object represented is a synthetic judgment, because the presence of an object in the idea does not immediately imply its existence outside of the idea. Where is now the link of the synthesis of idea and the purpose that makes possible and necessary the affirmation of the existence of the object in the idea? The connection of two things is naturally in both, is something common to both; but

-525- this link cannot be considered here only insofar as it is based in the very essence of the idea; because we are dealing simply with the possibility of the affirmation of the object in the idea. As real phenomenon, the idea is something entirely different of the object it represents and which we believe and which, only in the case of direct perception, is with it in the causal relation of cause and effect. But, to be produced by an object does not imply the belief, the affirmation of the object or of the cause, otherwise all effects would believe in the existence of their causes, which is not the case. The original relation of the idea to the object, which is at the bottom of its ideal nature and its affirmations, is not the causal relation to this or that object in particular, but a relation to the object in general; and it is precisely this relation that is expressed in the primitive Law to conceive any object as identical to itself.

If there were not in the idea that primitive necessity to affirm something of the objects in general, never could have any affirmation be made in it of objects.

In the belief, there is always necessarily two things to consider, its existence and its accuracy. We must, therefore, speak of the causes of that belief and its rational causes, what produces the belief and what justifies it. As the idea, on one side, is only an ideal and logical, and on the other, it is a physical or real phenomenon, the Laws of its physical nature can produce in it a belief that has no objective value, no value by right. However, as long as it is a question of primitive judgments, this duality in the essence of the idea is not important; because the

primitive judgments are simply those who are in no way the result of reasoning, which are thus implicit in the immediate perception as such, and the immediate perception of objects is always infallible. It is not, therefore, necessary to have a criterion

-526- of the truth in the immediate judgments, but in those mediate and concluded; but we do not have to consider this issue in this chapter. No doubt the primitive Law of intelligence, the need to conceive any object in itself as identical to itself, also leads to a mistaken belief, since it makes us conceive the given objects as substances that they are not in reality; we have amply shown that a moment ago. But, because of this misleading reasoning, the intelligence of all objects also becomes falsified, and there is no need to rectify it of a particular criterion. Precisely the primitive concept of thought, which lets us deceive ourselves in ordinary experience, makes us capable of seeing, by thinking, that nothing in the experience really corresponds to it, that what truly corresponds to it is outside the world of experience.

§ 2. What is affirmed in judgment.

The only attempt I know of to resolve in an intelligible way this question was made by Mill in his *Logic* (first book, fifth chapter): "To be, he said, simultaneity, causation, likeness, - Existence, coexistence, sequence, causality, similarity - one or the other of these things is affirmed (or denied) in any judgment; This division into five groups is a classification that exhausts everything that can be thought or offered to belief, all questions that can be asked and all the answers we can give them." (p. 315)

With regards to this list, a remark becomes imperative that was apparently overlooked, and it is surprising of so penetrating a mind as Mill. We see in effect that coexistence or simultaneity appears there only once, while the succession or the sequence appears twice. Besides the pure and simple sequence, Mill also mentions causality, that is to say, the invariable sequence

-527- whose terms are related. But, he neglects to include, separately, apart from the mere simultaneity of the diverse, the related simultaneity (*e.g.*, the various qualities of a thing). And yet, it is the most common case of predicate, one that is almost exclusively used by Logicians. To it belong all judgments as: snow is white, gold is yellow, the body is heavy, etc.

Another remark, which does not as readily makes sense, is the following: as long as the simple simultaneity and simple succession are considered a relation of the objects (in the first case, simultaneous in the second, successive,) they can never be expressed in general propositions, but only in specific propositions, such as: A is simultaneous with B, or A succeeds B. For, if we find simultaneities or successions among all kinds of objects and phenomena, that is to say if one affirm that all phenomena of a certain species are simultaneous or successive with respect to those of another kind, in other words, that the phenomena of a kind are always simultaneous with those of another kind, or always successive in relation to them – we do not affirm a simple simultaneity or a simple succession, but an invariable simultaneity, an invariable succession, that is to say, a link in the simultaneity, a link in the succession. In the language of Logicians: simple simultaneity and simple succession may come as predicates in specific propositions, not in general propositions. We must, therefore, omit them completely in a study of Logic. We can ask ourselves, again: what do we affirm in judgment?

We cannot believe and affirm more than the existence of an object or a relation of objects. There are two main types of relations:

1. Identity and, to a lesser degree, likeness, 2. Link.

Although the affirmation of the existence of an object cannot be

-528- more than a particular judgment and never a general judgment, we should not, as in the case of the simple simultaneity or simple succession, exclude it from the list of judgments; because, the belief and the affirmation of the existence of objects precisely constitute the fundamental function of the idea or of intelligence, the fundamental act of knowledge without which, generally speaking, any judgment would be impossible. We can, therefore, simplify and reduce to three terms the enumeration of Mill: *Existence, identity or likeness, link*.

We must be careful not to leave out any of these three terms, and that is what was done, however, by strong thinkers. Some are willing to consider only as the relations of things, similarity or identity (or dissimilarity). Others, on the contrary only take into account the link. W. Hamilton and Stuart Mill offer, each one in the opposite direction, a striking example of this bias.

We distinguish, as we know, as regards concepts, their extension and comprehension, or, if we use, as Stuart Mill, general terms instead of

concepts, their denotation and connotation. The extension of a concept is formed by the objects that belong to this concept and are labelled by the word that expresses it: for example, all feathered animals that have two feet and two wings, that lay eggs (as pigeons, swallows, herons, eagles, etc.) form the extension of the bird concept. Characters or attributes that are related to the essence of the objects belonging to a concept and that is connoted by the word that expresses it, form the understanding: thus, the common qualities of the birds mentioned above and all others, form the understanding of the bird concept. Or, if we take, in general, the concepts in terms of their extension, we are prepared to consider all general judgments as affirmations of resemblance, identity or analogy. For many objects belong to

-529- the same concept, or constitute its extension, for the very reason that their essence is analog, contains the same compound of characters or common attributes. If, on the contrary, we principally consider the concepts from the point of view of their understanding, we are prepared to consider all general judgments as expressions of a relation. For, the understanding of a concept is precisely the relation, of the characters that are expressed in its definition. (1) We, thus, find Hamilton who mainly considers the concepts in terms of their extension, regard all judgments as affirmations of analogy or non-analogy. According to his theory, we compare in all judgments two concepts as subject and predicate, and decide if one forms, or not, a constituent part of the other (quoted in *Exam.*, p. 410). In conformity with this theory, the meaning of the judgment: "snow is white" is strictly the following: the snow belongs to (is among,) the white things, which is unacceptable, as Mill rightly remarks; saying, in effect, of snow, that it has a white color, we do not think, or at least we do not need to think of other white things.

But, on his part, Mill took the concepts primarily in terms of their understanding, and then he was willing to consider all judgments as affirmations of a link, or, according to his constant language, of a coexistence of objects.

According to him, the judgment: man is an animal, should signify:

(1) Mill (*Exam.*, p. 411) makes this distinction in these terms: "We can understand all propositions in two senses which imply one another, so that if one is true, the another is too, but are nevertheless different: only one of them can be and commonly is in the mind, and the words used do not always indicate

which. Thus, all men are bipeds can either signify that all objects called men are all numbered among the objects called bipeds, which is to interpret the proposition by extension; or that the attribute of having two feet is one of those that make up the notion of man, or coexist with them, which is to interpret the proposition by understanding. "

-530- man coexists with the attributes which are connoted by the word animal – something obviously equally untenable because these attributes do not exist (as a particular entity) in man, but are a part of his own nature. The judgment "man is an animal" actually asserts an analogy between human and animal concepts, affirms the complexus of characters, which makes the concept of animal, is also found in humans. This surprising misunderstanding of Mill was, as I shall show, the reason for his mistakes in the theory of syllogism.

The fundamental difference between the judgments that express the identity, analogy or resemblance objects, and those which express the bond is thus unknown and we do not notice that both sides are reports usually expressed in the same way, by the copula "is."

The judgment "snow is white" expresses a link: this judgment asserts that the white color is inextricably linked to the other characters of the snow. The judgment "man is an animal" expresses rather an analogy, a similarity; because it says that all the characters of the animal usually occur in humans. But, as the link, the analogy of subject and predicate is expressed by the same copula "is." It is only for the identity or similarity of variables that we use the special sign =. And, on the other side, when the predicate expresses a causal relation, its connection with the subject is often expressed without the copula, as in the 'fire burning' proposition. One must not forget that the copula "is" may also mean "is tied with" as much as "is identical to".

§3. Difference between synthetic and analytical judgments.

We should believe that the distinction between synthetic and analytical judgments is not particularly difficult, especially

-531- since Kant has formulated it. Yet, we see on this point a great diversity of opinions and a lot of confusion. Kant, himself, does not distinguish analytic judgments from identical and some other thinkers regard the Principles of Arithmetics and Geometry as analytical, and believe, wrongly, to derive them from *the Principle of identity*. Moreover, we hear, about this distinction, things like this: "Whether a given judgment is analytical or synthetic, we can decide

only based on the degree of intelligibility that the concept of the subject has in the mind of who judges. The cat concept has a hundred times more intelligibility in the head of Georges Cuvier [Jean Léopold Nicolas Frédéric, Baron Cuvier (1767-1832)] than in that of his servant's; thus, the same judgments will be, of a cat, synthetic for one, or analytical for the other." (Schopenhauer, *The World as W. and R.*, II, p. 39). The distinction between analytical and synthetic judgments would have no importance for Science, if it had its foundation not in the nature of the judgments, but in the accidental qualities of the subjects who judge.

I have already had occasion to speak of this distinction, and, in relation to synthetic judgments, it is, finally, unnecessary to add anything: all the judgments in which we affirm the existence or identity (similarity) or the link of objects are synthetic, without exception. On the other hand, it is superfluous to dwell on the identical judgments; because you cannot express through them but mere tautologies. We must only explain the analytical judgments, insofar as they are distinguished from the tautological as well as the synthetic.

There are two kinds of analytical propositions, namely those that simply contain the definition of a word and those used for the simple specification of a concept. We will study them successively.

If we have an idea - howsoever it happened, or whatever its origin - and if we analyze it

-532- simply to see what it contains, without wanting, even in the least, to affirm nothing of the corresponding object, the propositions, in which are expressed the results of this analysis are strictly analytical judgments. They then form a simple definition of words. If, for instance, we affirm that we have the idea of a certain object that we agree to designate by the word "gold", and if we find that this idea contains a link to some characters, such as gravity, yellow color, metallic luster, ductility etc., our propositions in this regard are analytical judgments. The analytical judgment "gold is yellow," as a simple definition of the word, is neither an identical judgment, nor a tautology because it specifically affirms the connection of the yellow quality with other qualities of gold. The subject gold contains more than the yellow predicate and is, therefore, not identical to it. But, the analytical judgment affirms this link in our idea of the object only, not in the object itself, because it serves to express the simple analysis of our idea. Once the judgment "gold is yellow" focuses on the objects in

reality, it is synthetic. We can form ideas of objects that do not exist at all, designate them by a word and develop the content in analytical judgments, for example the idea of a centaur. Judgments are then simply the expression of meaning, that is to say the compound of characters that we want to link with the word centaur, and they cannot be from any point of view synthetic judgments, because they lack any relation to reality.

All we can say of a centaur is a simple analysis of our idea or of the idea that other people have attached to the word centaur. It lacks the fundamental element of synthetic judgments, the belief in a corresponding object.

Kant did not explicitly distinguished the pure definition of word from the real definition that indicates the belief and the affirmation

-533- of the corresponding object, and the result is confusion on this point. Following his presentation, every enunciation touching a character that is already contained in the definition of a concept, must – be it that it concerns the selfsame object or the simple idea of the object - be an analytic judgment. It should be noted in this regard that all the objects that we know are compounds of characters or qualities, and nothing more.

Our concepts of objects, therefore, are themselves synthetic concepts, products of a synthesis. Now, if we separate some of the characters contained in the concept of an object to constitute the definition of the concept, and bind them specifically to words that designate them, these characters do not acquire, thus, any new property. If I affirm of the corresponding object itself one of the characters contained in the definition, my judgment is synthetic, though I do not go out of the definition. The characters contained in the definition of an object can be distinguished from other qualities of the same object in that only that we can also form on them analytical judgments, namely when we simply analyze the concept which was the object itself. It is obviously not possible with the other qualities because they are not conceived in the definition of the concept.

The foregoing remarks suffice, I think, to explain this first kind of analytic judgments. As for the other kind of analytic judgments, those expressing specifications of a concept, I have not much to add to what has already been said. Judgments that express specifications are analytical most of the time in the sense, especially, that they do not

exceed the given concept; as affirmations relative to corresponding objects, they too are synthetic judgments (However, there are judgments of this sort that are only analytical and never synthetic from any point of view. As

-534- an example I shall mention the axiom: "Two things equal to a third are equal." This axiom is neither a tautology nor a statement of the nature of real objects; it is not a simple word definition, but an immediate consequence of the definition of things similar or identical. Indeed, are identical things that have the same nature, of which it can be affirmed the same thing; and, conversely, the things of which it can be affirmed the same thing, are identical. These are simple definitions of words, but the axiom immediately transcends them. For, if we say that two things are similar to a third, we affirm the same thing relative to their size.

They are therefore, according to definition, identical to each other with respect to their size, that is to say equal to each other.

This consequence is drawn from the definition of things equal and identical, without having need of a new independent data of this definition. In the supposition of two things that are equal to a third, there is nothing that is not contained in the concept of equal things. This assumption, to use the language of Herbart, is "an accidental view" of the concept of equal things. What I call specification of a concept corresponds, in fact, and to some extent to what Herbart called "accidental view"; only the meaning of a specification is narrower. The same straight line, for example, may well be the side of a triangle, or the diameter of a circle, or the vector radius of an ellipse.

The study of this line in all these respects, is what Herbart called "accidental view". But, these are not specifications of the concept of straight line, the way I understand it. For, to consider a straight line as as the side of a triangle or a bowstring, it is to consider it in circumstances and in relations that are completely outside the concept itself and the straight line definition.

-535- All affirmations coming from such a manner to consider it are not specifications of the concept of the straight line, but the consequences of this concept. On the contrary, if we determine that two lines that have two common points must completely coincide, our judgment expresses a pure specification of the straight line

concept. For, in this assumption, there is nothing that is not contained in the concept of straight lines. The assumption of two straight lines that have two common points is, in this respect, similar to the assumption of two things that are equal to a third. In both assumptions, we do not go out of the concept in question.

Now, every act of thought is either an affirmation relative to objects or an analysis of our ideas. To reason is to derive an affirmation of other affirmations. Ultimately, therefore, all thought consists in synthetic or analytical judgments.



Chapter 6

Syllogism

§ 1. From general reasoning.

The first issue to consider is naturally this one: What is reasoning? In what kind of process does it consist? We should believe that this has at least since long been resolved, as Logic, and with it the theory of reasoning foremost, has been studied for two thousand years with great zeal and that it presents no particular difficulty. But, there is even on reasoning many different opinions and we see that as eminent a thinker as Mill has given a theory of syllogism

-536- partly false. Special Logicians have understood things so they saw in reasoning a simple word game where the conclusion simply repeats what was said in the premises.

To understand more easily what is reasoning, we must first consider not the one that goes from general to particular or particular to the general, but one that goes from a case or a particular object to another case and another object. A child who was burnt once is careful not to approach the fire again; the child directly concludes from a particular case to any other case. We have here the primitive type of all reasoning and we can thereby know best its essence. What is the purpose of reasoning? Obviously this is to anticipate the perception of objects and where it is impossible or difficult, to replace it altogether. If we can embrace at a glance all the objects in their whole being and in all their relations, reasoning would be useless, except for one that would relate to future perceptions of objects. So, if I conclude from a case or an object A, which I know from previous experience to another case or a currently present object B, I anticipate and I replace the detailed knowledge and experience of B by my knowledge of A. This means, of course, that I carry my knowledge from A to B, I affirm of B what I know of A and, then, it is clear that the conclusion from A to B assumes the identity, analogy or similarity of A and B. B must first, in the immediate perception I have of it, present something analog or similar to A, otherwise, I would have no right to affirm of B the same as of A. Of the identity or analogy recorded of A and B, from a point of view, I conclude that A and B are also identical or analog from another point of view not yet studied. The reasoning, therefore, contains two moments:

-537- 1. The observation of the identity or similarity of two cases from one point of view, and 2. The affirmation of their identity or similarity from another point of view.

This is what the process of reasoning consists in.

The fundamental Principle of all reasoning is, thus, the Principle that of two equal or identical things the same thing can be affirmed. But, the question is how we can have the right to conclude to the identity or analogy of A and B from one point of view, and their identity, their analogy from another point of view. We obviously cannot have this right only if we already know the identity and the analogy of the case from one point view imply their identity and analogy from another point of view, or are related to them. And this is the point where precisely syllogism and induction separate. If it is, indeed, certain *a priori* that the analogy from a point of view implies their similarity from another point of view, the conclusion of a case in another similar case - is a syllogism. If, on the contrary, experience shows us that the analogy of two cases is always found, the conclusion of past cases to current or future cases that are similar from a point of view - is an induction.

The essence of the syllogism consists, therefore, not in its form, but in the kind of certainty that is at the back of reasoning. In Arithmetics and Geometry, one concludes from a way to form a sum to another way, from one line to another, from one angle to another, from the relation of the angle to the relation of the side, etc., all these reasonings are syllogisms because the identity of the cases and objects between which one reasons is certain *a priori*. Moreover, the selfsame reasoning from a particular thing to another particular thing can be a syllogism, as when measuring two things by the same measure, and we find

-538- they are equal to this measure, and it is concluded that they are equal. Here, it is true, the two premises, namely the equality of two things to the same measure, are not certain *a priori*: they are recognized through direct experience. But, the certainty of experience or direct perception is equal to that of a truth *a priori*; so is the reasoning, as well in this case, a syllogism.

But, as all *a priori* truth is general and we cannot be certain *a priori* of the identity of two cases without a multitude of such cases to be certain at the same time - you can define syllogism as this kind of reasoning in which a premise at least is certain or has a general *a priori*

value. And, for the purpose of formal Logic, we must further expand this definition, as formal Logic is not worried about the kind of certainty that is specific to the premises, as it is irrelevant, in fact, that the premises be certain *a priori*, or supposed by previous inductions, or finally just admitted - syllogism confounds with it for the deduction, that is to say with the reasoning that starts from premises already established in general. From this point of view, we shall further study syllogism, and consider first the theory of Stuart Mill.

§ 2. Theory of Stuart Mill on syllogism.

It was a pleasure that a man of such a clear mind and gifted with so eminent qualities as Stuart Mill had determined to write a great work on Logic. For, special people deal with Logic only to more often repeat scholastic formulas, analyze these formulas and manipulate them in various ways, but without ever gaining any profit from it. Mill shows for the first time that the dictum of *omni et nullo*, which is for Logicians the Principle of all reasoning, means nothing and, therefore,

-539- can lead to no conclusion, "When the minor, he said, says nothing except that something belongs to a class and that the major affirm only that this class is contained in another, the conclusion can only be what is contained in the lower class is also in the superior, and the result would be simply that the classification is consistent with itself." (*Log.*, II, 199.)

But, Mill himself falls into an error which, on his part, is really amazing. Instead of the dictum of *omni et nullo*, Mill poses as a fundamental Principle of affirmative syllogism, a Principle which, following his remark, is strikingly similar to the mathematical axiom: two things that coexist with a third coexist together (214). By coexistence, we must not only understand simultaneity, but connection of two things or two attributes of a thing, as Mill himself notes (202). The fundamental Principle of the affirmative syllogism is, according to Mill, the axiom: Two things that are related with a third are also linked together. Now, there is no doubt that we never reasons from this axiom, and that it does not represent at all the true Principle of reasoning, namely the identity or similarity of two cases.

Let us see where this error of Mill originated, and it will then be manifest for us. In a previous chapter, I showed that there could be in judgments only three types of affirmation: of existence, of equality or identity (similarity) and relation of objects. From the mere existence of

the objects, there is nothing to conclude; there are only two kinds of judgments to be considered in reasoning: identity affirmations and object relation statements.

Were we now to neglect either of these kinds of judgments, we would be led to the scholastic theories, or that of Mill, which are exclusive one and the

-540- other. Why some thinkers are inclined to neglect one or the other of these kinds of judgments, I have explained in this chapter. Indeed, as any judgment can be built after the extension, or from understanding of the concepts, it can be considered a reaffirmation of identity, of the analogy between the subject and the predicate, or as the assertion of a connection between them. But, in some judgments, it is only the first manner to consider that is appropriate, not the second, and in others, on the contrary, it is the second and not the first. If the predicate of a judgment designates an attribute or a character of the subject, the judgment affirms the connection of subject and predicate. If, on the contrary, the predicate of judgment refers to a class, a genus or a species of things, the judgment expresses the analogy of subject and predicate, affirms that the subject belongs to the class, the genus or the species designated by the predicate. Building the "gold is yellow" proposition in these terms: "gold belongs to the number of yellow things" makes no sense. Because, this proposition affirms the link of the predicate "yellow" with the other properties of the subject "gold," and says nothing of other yellow things. But, it would be equally absurd to build the proposition "gold and a metal" saying "gold coexists or is linked with the properties of a metal"; because, this proposition clearly expresses the analogy between the essence of gold and the metals in general, affirms that the concept "gold" belongs to the genus "metal". The scholastic Logicians were and are likely to build all the judgments after the extension of concepts and, therefore, to conceive them as the expression of an analogy between a thing and a class, or between a class and a higher class. Thus, reasoning, according to them, is to match each of the concepts with the other. On the contrary, Mill was inclined to build all judgments according to the understanding of concepts, hence to con-

-541- sider as affirmations of a connection of a subject and an attribute, and was thus led to take as Principle of reasoning the axiom quoted

above: things that coexist (are linked) with one and the same thing, coexist together.

In fact, a syllogism can be formed of two premises that both affirm an equality or an analogy. Of this kind are all reasonings based on the axiom "two things equal to a third are equal." But, never can a syllogism be formed from two premises which express both a link. The minor must in all cases be the affirmation of the identity or similarity of two facts or two concepts, and it is precisely on that the conclusion rests. Mill could cite in support of his theory of reasoning the following species:

The object *A* has the character *b*.

The character *b* is inseparable from the character *c*.

Therefore, *A* has also the character *c*.

Both assumptions appear here to affirm a link, - the first, the link of character *b* and the object *A*, the second the mutual connection of characters *b* and *c*. The argument, therefore, seems to reside solely in the finding of a link, as Mill teaches. But, it is only an appearance.

We must indeed remember that characters and attributes do not exist independently of objects, and then it is clear that the second premise which simply seems to affirm a link of characters, affirms, in fact, an analogy between the objects that have the characters. the proposition "*b* is inseparable from the character *c*" means basically this: things that are similar by character *b*, are also similar in character *c* actually; how do we know that there is a link between two characters? Exclusively by this that the two are still perceived together, by the finding of analog cases. This is precisely on what the conclusion is based.

-542- It is the more surprising that Stuart Mill has misunderstood the true theory he has affirmed in several passages of his *logic* itself, and especially in what he presented as "the general type of the reasoning process." This general type according to his statements is this: "Some individuals have a given attribute; an individual or individuals similar to the first with respect to certain other attributes, are also similar to them by the given attribute" (I, 229). What can be, according to this, the foundation of any reasoning?

Obviously the belief in the identity or similarity of different things and cases. The fundamental axiom of all syllogisms (affirmative) is the Principle: Of equal or identical things we can affirm the same thing or,

conversely, the proposition: The things of which we affirm the same thing are in this the same or equal. This second proposition follows indeed, as we have seen above, the axiom: Two things equal to a third are equal, which plays a great role in mathematical reasoning, but of which the scholastic Logicians with their dictum *de omni et nullo* could not give a reason.

§ 3. Of the value of syllogism.

As syllogism is a reasoning that starts from premises already established and known and, as in it, the conclusion does not contain more than was contained in the premises, the question is to know how we can conclude from the syllogism something new, something unknown. Whether it is possible, first of all Mathematics prove, in which everything is deductively demonstrated by syllogisms and, secondly, it is also proved by all the discoveries of physical truths and others that are not established by observation or experience.

Stuart Mill sought to answer the same question, but not, it seems to me, in a way quite satisfactory.

-543- He says, in effect: "All reasoning goes from the particular to the particular; general judgments only serve to express such consequences already established and are short formulas to obtain others: the major of a syllogism is, therefore, a formula of this kind, and the conclusion drawn is a consequence not of this formula but according to it, while the real logical antecedent or real premises are the facts from which the general judgment was drawn by induction." In reality, this is not an answer. Because, regardless of whether the premises are the result of an earlier induction or are established otherwise; it suffices that they be known or recognized and the question is how the unknown can be drawn from the known.

We just have to refer back here, primarily, as Schopenhauer has clearly noticed, to the difference between "having something in the mind, in general" and "being aware of it". We can walk around many premises in our head which, close together, would have strong consequences; but, they do not come close. The property of the association of ideas to bring precisely such combinations of premises from which result significant and unforeseen consequences constitutes the genius of the inventor. So we already knew in the last century that steam can be used to provide work, and it was known for centuries that a boat moves forward when water is pushed back – but, Fulton was the

the first to think to use steam to move the boats. The same can be said of balloons, the electric telegraph and all other modern inventions. The inventor has no more knowledge and, consequently, no more premises than many other men, but, in his mind, combines precisely such premises from which are deduced the consequences that had not yet been thought of. It happens likewise for many discoveries. So we knew from a long time all the premises from which derives the necessity of trade winds, but

-544- no one had thought to use them to explain these winds, because they were combined as useful in no one's mind.

It should not be assumed, however, that the superiority of the inventor only rests on a physical property of the association of ideas. Its own foundation is rather of a different nature, namely a greater ability to logically combine things and ideas, driving and determining his ideas, his beliefs more by logical reasons and less by physical causes that is the case with most men. If one considers how often it happens in the human consciousness that thoughts, the most inconsistent opinions (logically) meet, and how often, on the contrary, men are unable to form the simplest logical links of their ideas - it is easy to see where the nerve of the thing resides. Most men move into old ruts because they are driven, determined in their beliefs, convictions, not by a theoretical interest, but by authority, instinct, habit and imitation. They, therefore, are never able to deduce - and this is understandable - new truths of known premises, especially when these truths contradict their preconceived opinions.

This requires, above all, a great independence as regards physical motives to think that we have mentioned.

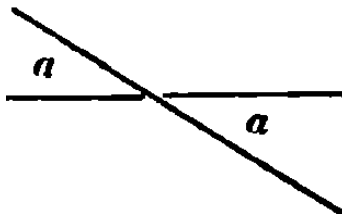
But, besides this manner of deducing new truths from premises already known, there is still a higher manifestation of deductive creative minds, that is to find the selfsame premises; and this in two ways, either by the immediate, awesome proclamation of a general Law, of a fruitful hypothesis which is confirmed by experience, or by subsuming it to already known Laws, not individual facts, particular data, but complete data combinations that, perhaps, we never encountered in experience.

-545- For example, the theory of gravitation of Newton, the wave theory of light of Young, from which was drawn the knowledge of the interference of light, as unexpected as it was, and that we would have

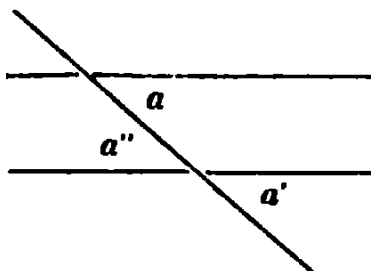
never ascertained otherwise in an experimental way, the hypothesis of Kant and Laplace on the production of our planetary system, and other similar theories. But, the most striking example of such deductive creating from the two points of view, is offered by Geometry. First, the highest premises from which everything is deduced in Geometry - the definitions - are creations of the mind, to which nothing exactly corresponds in experience.

Second, the progress of deduction in Mathematics is the introduction of ever new combinations of clear data which, at every step, opens new views on the Laws of extension. For example, all that can be known of the properties of rectilinear figures is derived from the definition of the straight line; the progress of the demonstration is conditioned by the introduction of ever new combinations of data. To make things clearer, take the simplest series of deductions, one that leads to see that the sum of angles of a triangle is equal to two right angles. This requires combinations of data that are seen in the figures below.

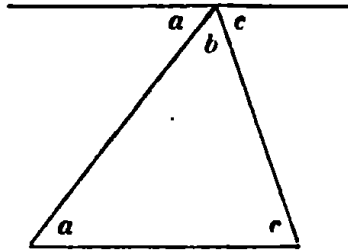
I



II



III



What have we here for general premises? 1. The definition of the straight line according to which a straight line is perfectly

-546- identical to itself in all its parts, follows a perfectly uniform direction; 2. The definition of parallel lines, from which two parallels follow directions exactly similar and homogeneous and, therefore, can never form an angle between them, that is to say present a difference of direction; 3. The axiom: two things equal to a third are equal; 4. The axiom: if you add equal amounts to equal amounts you have equal amounts.

But, axioms are analytical propositions and we cannot, strictly speaking, draw from them any consequences. I have already shown that the first of the above mentioned axioms can be deduced from the definition of equal things: it simply means that equal things can be substituted to equal things. And then the axiom next quoted: ("if you add equal amounts to equal amounts, you have equal amounts" is even an identical proposition and can, as Mansel (*Metaph.*, p. 253) has precisely noticed, be expressed by the equality $A + B = A + B$. Axioms are not, therefore, the premises from which something can be deduced but, as it were, the vehicle of the reasoning itself and, just as well as the force is not the cause of effects, but the basis of the relation between causes and effects. The actual premises, therefore, are only of two kinds, first definitions, (1) and second the combinations of lines.

Now, if we wanted to reason from the precepts of Logicians, we would have:

(1) Mill (*Log.* I, 215) asserts that the definitions are not in Geometry the premises of our reasoning, but what he says about it is the purest logomachy. Because, he grants himself that anything we can conclude, for example, the properties of a

circle, follows from the supposition of the equality of its radii, and what is this supposition but the definition of a circle? It is immaterial whether applied to a particular circle or all circles; the definition is still the premise of all the conclusions relative to the other properties of the circle.

-547- The straight line is a line always similar to itself:

This line is a straight line;

So, this line is similar to itself in all its parts.

Of course, one would never change place throughout eternity. But, such tautological reasoning, this so-called reasoning is already rendered useless by the very fact that the lines we draw are taken, from the first, for lines conforming to the definition. The real reasoning is something completely different. It follows first, as we have seen, from the definition of the straight line as two lines that intersect form opposite angles (a and a , fig I; a and a' , fig II.) equal, because they follow on both sides of the section point (according to the definition), perfectly equal directions and that, as a result, they provide an equal difference of direction, that is to say equal angles .

As we see, the conclusion is not based on the dictum of *omni et nullo*, but on the Principle that from equal or identical things (here two straight lines or on both sides from their point of intersection) it can be said the same thing. Secondly, and according to the same Principle, it follows from the definition of parallels that, if two parallels are cut by the same straight line, the corresponding angles formed thereby (a and a' in Fig. II) are equal between them because they form the intervals of equal directions. Let us substitute in Fig. II a' to a'' , we have $a = a'$ and, therefore, in Fig. III, the equality of $a + b + c$ and $a + b + c$.

The equality of a and a , in Fig. I, and that of a and a' , in Fig. II, could also be suggested to us by an empirical intuition of two straight lines intersecting and two parallels intersected by a straight line, granted they will not differ too much from a real parallelism, although the proof itself of this equality can result only

-548- from the definitions; but, to link at the top of a triangle a straight line parallel to its base, is already quite a creation proper of a deductive mind, which gives itself new premises to reach new consequences. And this result, once acquired, is itself in turn a premise, from which, for example, we conclude, through the knowledge of two angles, the third.

The arguments here are true syllogisms, because the identity of cases between which we reason is certain *a priori*. This is because the premises are not the facts found empirically, but lines, lines that we take as complying with the definitions. The definitions themselves are not, as claimed by Stuart Mill (*Log.*, I, 246), generalizations of experience. This statement has simply no sense, because experience offers nothing that is exactly consistent with the definitions. "The circle in our imagination, says Mill (*Exam.*, P. 318), is simply copied from those we know from experience in which the senses cannot discover any difference as to definition, that is to say whose radii are not significantly unequal." But, if we start by determining in advance which circles appearing in the experience we want to copy, then our definition of the circle (which we use as rule) is already constituted obviously independently of experience, and therefore, it cannot be a copy of it. No doubt that without experience, we would know nothing of circles or straight lines; but when once the idea of space has been produced in us, it is an *a priori* intuition and, on that basis alone, makes a deductive geometry possible. Because, we could never conclude anything from our definitions or arrive at a single new truth, if it were not possible to posit and combine in intuition the corresponding objects.

-549- The importance of the deductive, syllogistic reasoning, cannot be estimated too high, and Mill, in the third and fourth chapters of the second book of his *Logic*, introduced on this subject very good remarks. But, it does not follow that syllogistic, formal logic, is important, whose rules do not lead to the discovery of a new truth or to verify the reasoning of the premises. Mill says excellently (*Log*, I, 220). "The goal toward which formal logic tends and is reached by observing its rules, is not the truth, but the agreement with oneself" and, at another location, (*Exam* p 451..) "Forcing people to see a contradiction where there is one, this is the whole task of logic in the narrow sense of the word." In fact, the usefulness of syllogistic process consists in finding new premises, in combining currently present ones in order to draw new consequences, and for that there are no rules. But, it may happen that we believe falsely that a certain consequence follows from certain premises, because we have not clearly reconciled them, and then it is good to verify them, to put our reasoning in the form of a syllogism. Because, when the premises are placed one beside the other on the paper or specifically reconciled in our head, there can no longer remain any doubt about whether the conclusion follows or

not. To fare better in such cases, the rules of the syllogism are useful, although their knowledge has rarely prevented anyone to err. (1)

(1). Macaulay said very well in his article on Bacon: "A man of syllogistic mind all day, in *Celarent* or *cesare*, unconsciously, and though he may not know what an *ignoratio elenchi* is, he has no difficulty in saying what it is, when he happens to commit one, which does not happen to him more often than to a reverend Master of Arts, nurtured in the cloisters of Oxford to modes and figures."



Chapter 7

Induction

§ 1. Of the empirical foundations of induction.

To address the issue of reasoning, there are three main points to consider: 1. What is the process of the selfsame reasoning? 2. Why are we actually led to reason? 3. What basis and what degree of certainty do our reasonings have? We will briefly examine these three points as regards induction.

All reasoning assumes the identity of the cases between which we reason, and induction differs from the syllogism in that for induction this identity of the cases is not certain *a priori*, but is admitted due to previous experiences. Induction concludes from known cases, other similar but unknown cases.

While in syllogism, the conclusion contains nothing more than what there is in the premises, in induction, the conclusion exceeds the truths that serve as its foundation.

Induction is essentially a generalization. (1) However, we

(1) Scholastic Logicians admit a so-called "complete induction" which is not a generalization and that they hold the only legitimate. This complete induction is, however, neither induction nor reasoning in general, but just the double observation of the same fact. This complete induction, for example, would be like saying: if Paul had a beard and if Pierre also had a beard; if Peter and Paul were both the heads of the Apostles; then, the leaders of the Apostles were bearded." Logicians of our time still bother about such nonsense, and yet Galileo had already made to an Aristotelian Logician regarding the complete induction, this excellent point: "If induction were required to pass in all cases, it would be either useless or impossible; impossible, when cases are innumerable; useless, if they have all been verified since, then, the general proposition adds nothing to our knowledge." (Quoted by Whewell, *Phil. of the invention*, London, 1860, p. 118).

-551- can either directly conclude, from the facts known, similar ones, or deduce from the first a general truth to apply it to other cases. Some people want to give this name of induction to the last operation, only which is to derive several cases of a general proposition, but this is

wrong. Because, the process is basically the same if we conclude from some cases a few similar cases, or if we draw a general proposition; for the same reason that forces us and allows us to conclude that some unknown cases, forces us and allows us to conclude some unknown cases of the same species. The only difference, here, is that the direct conclusion from cases known to some unknown cases is a generalization without conscious intention, while the derivation from a general proposition of some cases is a generalization made intentionally and with full awareness.

Now, let us consider by what we are led to reason inductively actually from known facts to similar unknown facts.

There are two elements in our intellectual organization that bring this result: 1. The necessity residing in the nature of the knowing subject to believe in the reality of all that is present in his consciousness, in other words to affirm or conceive as a real object all that appears in his idea: 2. the association of ideas.

It is easy to see how these two conditions necessarily lead us to inductive reasoning. If, in the subject, an association is formed between the ideas of two objects A and B, the idea of B, by virtue of the association, will happen again at the sight of A or a similar object and as the subject primarily believes in the reality of all that is presented in idea, the actual existence of B or an object similar to B will be believed and affirmed internally. This is an inductive conclusion from cases known to unknown cases.

-552- But, the constant linking of objects is not the only reason for the association of ideas. There are other reasons, still, that produce an association between ideas whose objects are never connected, which may be presented together or in immediate succession to perception. So, one might think that the subject is confronted without reserve to the chance that governs these associations. But, it is not so, because the misleading agents also contain the remedy in themselves. The general Principle of affirmations, as I have shown above, is also the general Principle of negations; doubts (unbelief) are born of the conflict of opposing beliefs, and the very combination that leads us to illegitimate conclusions can also remind us of negative examples, that is to say of cases different from the one that occupies us, borrowed from our previous existence, and keep us thus out of hasty and illegitimate conclusions. The conclusive evidence is that with the enriching of the experience, all the other reasons for the

association of ideas lose their influence on belief, and that there is only the constant connection of objects, which consequently determines the absence of negative examples in the past experience, that leads the subject in its inductive reasonings, from known cases to similar unknown cases.

These very arguments, as well as their rectification, are primarily produced in the knowing subject in a quite unconscious manner. The English Psychologists had long known of the existence and role of unconscious reasoning; but, in Germany, if I am not mistaken, Helmholtz took care of it, the first. He has also reported a large number of cases of illusions, of vision, in particular, that come precisely from these unconscious inductive reasonings, due to the association.

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§ 2. Of the rational foundations of induction:

a) Relative to the succession of phenomena.

Induction from the constant production of similar phenomena and the non-production of different phenomena (cases), Mill, following Bacon, has called it induction by simple enumeration. As the natural corrector is only the production of different cases or negative examples, a non-reflective mind is naturally happy with the induction by simple enumeration, and has use of experimentation only in doubtful cases, that is to say in which testimony from the experience are not entirely consistent. Mill rightly said about it (*Log*, I, 331). "This is the kind of natural induction in a mind that is not accustomed to scientific methods. That the facts be numerous or not, decisive or not, does not make much difference; we do pay attention to that when we think. The natural tendency of intelligence to generalize its experience supposes that the latter is quite uniform and no different experience can occur. The thought of seeking the opposite experience, of experimenting to find it, of experiencing nature (following the expression of Bacon) comes only much later." But, as soon as reflection is come, we note that induction by simple enumeration is not always justified, that in the course of the experience, the same exceptions arise to the Laws apparently the most solidly established.

According to the remark of Mill (pp. 351) "Fifty years ago, the inhabitants of central Africa were convinced by the better founded experience than all men were black. A few years ago, the claim that all swans are white seemed an indisputable example of uniformity in the

course of nature. Subsequent experience has shown, in both cases, that it was wrong. But one could

-554- have waited fifty centuries for this experience, and during all that time one would have believed in a uniformity of nature that does not exist."

So the question arises: How to distinguish inductions that are certain from the uncertain ones? And who guarantees in general the value of induction?

All reasoning rests on the supposition of identity, the likeness or analogy between cases about which we reason. The value of the induction presupposes that in experience appear really identical or analog cases, so that in the flow of things there is something immutable. But whence can the certainty that there is something immutable in the experience? From induction? Obviously not, because the value of the induction itself presupposes that certainty, and to derive it from that one is to walk in a circle. Therefore, if there is a rational foundation for the value of induction, we cannot find it in itself. Hume has already shown that the experience does not offer such a basis to justify induction, and one must wonder at the ease with which Mill eludes the question. Mill even grants that even if experience is the only basis of induction, the latter ultimately comes down to induction *per enumerationem simplicem*, because the Law of causality the certainty of which is the basis of scientific methods, can itself be observed empirically by only induction *per enumerationem simplicem*.

But, Stuart Mill believed that in the process that establishes the value of the induction on the certainty of the Law of causality, and conversely, the certainty of the Law of causality on the value of induction, there is no *circulus vitiosus*. Because, he says, there are cases where induction by simple enumeration may found a Law in all safely, the ones, indeed, in which we know of no exception to the Law in question but

-555-

also where we know that an exception could not escape our knowledge, what is true of the general Laws that act everywhere and at all times. "The uncertainty of induction, induction by simple enumeration, is in inverse proportion to the extent of generalization. It is the more illusory and insufficient that the subject of observation,

itself, is more special and more limited. The more the sphere expands, and the more the uncertainty of this unscientific method decreases, and the most universal classes of truths, the Law of causality, for example, or the Principles of Arithmetic and Geometry, are sufficiently proved by this method and are not susceptible of any other evidence." (II. 100)

Let us leave aside, here, the Principles of Arithmetic and Geometry, because it is an obvious fact that they are not purely inductive. But, let us pause a little on the Law of causality.

That every change has a cause, an invariable antecedent, we know, according to Mill, only by experience, and he believes that we are assured that there never was in our experience a fact without a cause, because this fact could not escape our knowledge, although it is possible that, in stellar regions, away from us, there are facts without a cause. It would be nice if the changes were not something so fleeting, that all terrestrial bodies are heavy or gravitate towards the center of the earth, we believe with good reason on the basis of an induction by simple enumeration; because, although we have not weighed all bodies we can admit with certainty that a weightless body would have, somehow, presented itself to someone, sometime, if there had been at least one like this. But, can the same be said of the changes that do not remain as the bodies but continually vanish? Countless changes occur every instant, and we can be sure that not one in so many thousands of years

-556- did occur without cause. But, just one change is enough to destroy the value of the Law of causality and with it, the whole edifice of inductive Science. Moreover, it is not necessary for this that one change actually happened without a cause; the only option or conceivability of such an event is enough to question the legitimacy of any induction. Mill does not seem to have well represented what the possibility of a change without cause strictly means; otherwise he would not have spoken so naively of a change without cause in distant stellar regions.

The possibility of change without a cause means nothing less than this: there is no Law, no uniformity observed in previous experience, in the coexistence or succession, anywhere, which has any guarantee of its continuation; in short, there is absolutely nothing immutable in the world of experience (see Part One, p. 70 ff.). Because, a change without a cause is subjected to no place, no Law, no condition in general, and consequently the production of such a change can be neither prevented

by anything, nor limited in any respect. Something stable and unchanging in experience cannot be certain to us only if the changes are subject to a Law which admits no conceivable exception. But, if "the belief is not proof," as Stuart Mill said, induction cannot produce any legitimate belief either if based on experience alone. We cannot have, therefore, a rational reason to believe in the value of our inductions, unless the certainty of the Law of causality is established *a priori*.

If we have a legitimate, rational reason to believe that absolutely no change is possible without a cause - and experience cannot prove it - then, we have the certainty of something immutable in the experience, namely the selfsame connection of causes and effects. Of the

-557- proposition "no change without causes" follows, as I have shown in Part One, with a logical necessity, that the same causes in the same circumstances produce the same effects. The cause of a change is precisely nothing else but its invariable antecedent. So, we can in the value of this Principle deduce from each particular case and establish an immutable, general causal Law. The Principle of "no change without causes" is also the basis of the scientific methods of induction. Mill has explained and listed four such methods he calls concordance method, difference method, residual method and method of concomitant variations.

To make clearer the exposition of these methods, we must first note the following: if all the causes and all the changes were always quite simple, showed no complication of circumstances and elements, there would be no need for special methods to scientifically observe the relation of an effect and its cause. To derive a Law from a particular case would then take the form of a simple syllogism with the following contents:

all change has a cause or an invariable antecedent (Law of causality);

A is the unique antecedent of B (direct experience):

A is, therefore, the invariable antecedent, that is to say, the cause of B (finding of a Law of causality).

We would thus be perfectly certain that everywhere and always B uniquely follows where A occurs, and if B appears always and everywhere A preceded. (1) But, in nature there are no so simple

cases; what preceeds and what follows is always something complicated, a compound. We must, therefore, seek to unravel what,

(1) The latter proposition is, admittedly, not so certain because the same effect can have several causes.

-558- in the previous state of things is the cause, the invariable antecedent of a given change, or *vice versa*, what in the subsequent state is the effect or the invariable result of a particular antecedent. But the methods mentioned above provide us the means to make this distinction. They are, according to the remark of Mill, methods of elimination. "The method of concordance is based on this that everything that can be eliminated, is not bound by any Law to the natural phenomenon. The method of difference is based on this that everything that cannot be eliminated is bound by Law to the phenomenon." (*Log.* p. 458)

The methods of residual and concomitant variations are an extension of the first two. They are not properly speaking methods of induction, but methods to see what phenomena, in all the studied cases, follow each other. Induction consists, first, to conclude that these phenomena in all other cases even the ones not studied, of the same species, are invariably linked and that conclusion is legitimized by the certainty of the Law of causality. (1)

We thus see what can give inductions a scientific character. The purpose of Science is to find Laws absolutely without exception and unchanging. Helmholtz well said about this: "We need to search, to work, until we find Laws without exception. We must not rest before we do." (*Discourse* I, 22) But, the highest point to which experience can reach is to find an immutable Law, without exception, in all

(1) This reasoning has, as we have seen, the form of a syllogism, and is distinguished from the syllogism itself only in that the minor contains a relation found empirically; further proof that the essence of the syllogism is not in its form. If we wanted to also call this reasoning syllogism, there is only induction by simple enumeration that would keep the name induction.

-559- the cases studied, that is to say the finding that two phenomena have invariably followed each other without exception, in all cases observed. On the contrary, experience alone provides no rational reason to believe that a Law thus found will invariably apply at all

times and in all places. However, the scientist believes in invariable Laws without exception according to scientific rules, although they are centered on a small number of cases. Where does this assurance come from? Obviously from the *a priori*, apodictic certainty, of the Principle of causality. Once it is certain *a priori* that change cannot occur without a cause, it is also certain *a priori* that any change happens under an invariable Law and without exception that links it with its immediate cause. Thus, Science has simply the task of bringing the complex back to its elements, to bring back the derived Laws to the primitive ones, to derive the mediately causal from the immediately causal. If this task is fulfilled, the induction based on the facts is absolutely certain, has the value of an apodictic truth, without exception.

For induction to have this scientific character, it requires, as we see, two things: 1. An exact knowledge of the data on which we will reason, and 2. The apodictic certainty of this truth that all changes are subject to invariable Laws, without exception. The first is a matter of Science, the second springs from Philosophy. They complement each other well.

§ 3. - Rational foundations of induction:

b) With respect to the simultaneity of events.

The Laws of successive phenomena (that is to say, the causal Laws) are not the only ones in nature. There are also Laws of simultaneous phenomena. In other words, there is a

-560- an invariable simultaneity, and we wonder how we can find it with certainty. There is no general Law of the simultaneous, as the Law of causality is the general Law of the succeeding. On what basis could we, therefore, hold as unchanging a simultaneity constantly observed in certain phenomena? Mill devoted a whole chapter of his *Logic* to the consideration of this matter (Book III, Chapter 2), and arrived at this result that we cannot apply to simultaneous phenomena but the unscientific induction of simple enumeration, and as a result, one must consider all observed uniformities of simultaneity only as empirical Laws that can be trusted only within narrow limits. We clearly see here the impotence of pure Empiricism.

If invariability in the simultaneity of phenomena were not certain, establishing causal Laws would not be possible for us. What are, indeed, causes and effects in the outside world? Qualities and body

states; and a body is itself nothing other than a compound or group of qualities. The succession of immutability cannot be detected without the immutability of this compound of simultaneous phenomena we call body. We found, for example, that a substance, sulfur, if you will, in certain circumstances produces a determined effect, and we conclude with perfect assurance that the sulfur in the same conditions will always produce the same effect. But what good would it do if we could not reliably recognize the sulfur itself, if we were not confident that the compound of characters, of phenomena that we call sulfur, is immutable? Obviously nothing. This reason of uncertainty would be removed from induction only by Laws of causality that relate to the qualities and ways of being common to all bodies without exception. So we have

-561- all confidence that sulfur can be infallibly known by some characters, and this is the case for all chemical substances, both simple and composed. Moreover, Mill himself says (*Log.* p. 130) that a newly discovered substance can be established with certainty by a single experiment, and how would this be possible if the immutability in the simultaneity of phenomena that constitute the essence of a substance were as unsteady as Mill claims? Empiricism obviously cannot account for the facts.

But, then, we have two questions: 1. How can we find by experience an invariable simultaneity of phenomena? And 2. By what right can we conclude, from the invariability of coexistence in known studied cases, the constancy of the same coexistence, in other cases unknown and unobserved?

Regarding the first point, we are not limited for the finding of invariable coexistence to the unscientific method of simple enumeration. The experimental method finds here rather an extended use. Chemistry is mainly an experimental science, and its main task is precisely to establish the invariability of certain groups or compounds of simultaneous phenomena. It is not just the phenomena that occur together, but those in the flow of all the others that remain associated, which can be linked together as known or as invariably coexisting, and to make this sure, we must use experience; this is precisely the use of the chemical analysis and synthesis.

But, the reason which ensures that the characters of a chemical substance are not only involved in the known cases, but always and

everywhere (at least in the same circumstances), is the concept of substance in general, which

-562- implies the indestructibility and invariability of the substance, as I have shown in Part One. If we found the qualities of a substance, gold, silver, sulfur, water or any other, we have as a consequence of this concept, the certainty that *a priori* the same substance in the same conditions will always have the same properties. This certainty has the same character of universality and apodictic truth that finding causal Laws, the basis of the Principle of causality. As a result, the induction which refers to the coexistence of phenomena is as certain and scientifically legitimate as regards successions. From the presence of a few characters of a known chemical substance, we can conclude the presence of other previously recognized qualities of the same substance, as surely as from the presence of a cause that of its previously recognized effects. For, in accordance with the Principle of substance, the nature of a material and its components invariably remains the same. Nothing is lost, nothing is created, and this both in terms of quantity and quality. Indestructibility, invariability of the substance, here is what makes our experience possible, in general, and which also provides the rational basis of the value of inductions that relate to the material.

One might say that the concept of substance does not apply legitimately to bodies because they are not real substances, but only compounds of phenomena.

But, I have shown that these compounds could not be known as substances if they were not naturally adjusted to that knowledge. Exactly the same Principle which produces the knowledge of the bodies, ensures by itself the value of inferences that relate to the essence of the bodies.

If our sensations appear to us as mere inner states

-563- pure changes of the self, we would have no rational basis for believing in their invariable coexistence.

In the case where experience shows us that certain sensations are always perceived together, we could not found on it more than mere empirical generalizations: in other words, we could expect to see them breed always together, without having for this expectation, a reason based on reason. But, from the fact that we are forced to recognize in our sensations substances in space, and that we have thus the certainty

that the Laws of our experience are adjusted to this view, because it would be impossible without this, - we have a rational motive, logically legitimate to believe in the invariable coexistence of our sensations. And this is what gives a scientific character to the inductions of physics and chemistry.

Invariability which is involved in the concept of substance, therefore, also finds its legitimate use for corporeal substances, although the constancy of these is not unconditioned, as it would for a real substance. The properties of a chemical substance do not remain invariable in all circumstances. Each of them can exist in three states: solid, liquid and gas, and with the change of state, a change is produced in the heat capacity and some other properties. By the union of two substances or more, new substances seem to appear to occur which have very different qualities from those substances of which they are composed. Yet all this does no harm to the certainty of induction; more so, the change in the composition and gathering of qualities is itself according to invariable Laws, on the foundation of the Law of causality.

We should not expect that a substance

-564- present the same qualities in different circumstances, but we are certain that it always has the same qualities in the same circumstances, that is to say it forms coexisting phenomena groups. Induction cannot be mistaken by the confusion of different substances, but there can ensue a few fallacies among men with little education or biased. Science gives the means to distinguish between substances with certainty, and that is its main task. And we are so sure of this kind of induction that we believed to be able to see with certainty, through a simple spectral analysis, for example, the presence of different substances known in the sun, or even the heavenly bodies more distant, and we know of no reason to contradict it.

Moreover, the certainty of the indestructibility and invariability of the substance is not only a rational basis for the value of the inferences that relate to the coexistence of phenomena, but must in some sense (*i.e.*, the empirical point of view) to derive the invariance of causal Laws, or what is the same thing, at least as we consider only the material world, the value of the Law of causality itself. Indeed, all causes and all effects in the material world are qualities, states of the bodies of matter. The fact that the same causes always have the same effects in the same circumstances can therefore be considered as a simple

consequence of what bodies, matter, are in their nature invariable. In fact, the concept of the invariability of the substance is properly the supreme concept of Science. The whole effort of Science, as we have seen in the Book One of Part Two (chapter 7), tends to represent the final elements of matter, that is to say the actual bodies themselves as perfectly simple and immutable, and reduce all the facts, all the changes of the material world to movements only of these simple bodies. And this concept of substance is a metaphysical concept. It is often said that this truth of the indestructibility and immutability of the substance, which has been taught for ages by philosophers only became a truly scientific truth through the experience of scientists. How is it that men remain so much in the dark about the most basic questions? This affirmation obviously rests on the naive belief that the objects of experience are real substances that we can, consequently, perceive and experience what is outside of us.

But, I have given ample evidence that this belief is based on an illusion.

From the above explanations, we can certainly see, I hope, what is the relation between Philosophy and Science in that which is the proper domain of the latter.

Philosophy has no precepts to give to Science and has no reason to impinge in any way on its territory but it has the power and the task of logically founding the primary suppositions of Science itself, raising simple postulates to the dignity of scientific truths that can be, only then, legitimately regarded as Principles of certainty in all the generalizations of Science. The two fundamental hypotheses of Science are the invariability of the substance and the universal value without exception of the Law of causality. Only they can give a scientific character to inductions and to the results of the study of nature.

But, the study of nature cannot itself justify these fundamental assumptions, it cannot establish itself and consolidate its own foundation. This task is that of Philosophy. However, philosophical research shows, as we have made it clear in this book, that the Principle of the permanence of the substance and the Principle of causality are both logical consequences, immediate, of a higher truth, obvious by itself or immediately certain, that in its own being, every object is

identical to itself. This supreme Law of thought is also the supreme Principle, the source of certainty in the experimental Sciences.

THE END



Appendix

The Absolute and the Normal Nature of Things.

[This appendix is an abstract of Gabriel Huan's Thesis on *The Dualism of Afrikan A. Spir*, presented in 1914 at the Sorbonne University of Paris. I added it to my translation of *Denken und Wirklichkeit* as a comprehensive reflexion on Spir's concept of God, *i.e.*, the *unconditioned* Absolute and *the Normal Nature of Things*.

Note: All references to *Thought and Reality* (Part One and Part Two) appear as: Ges. W. I and Ges. W. II. Page numbering refers to the German original edition.]

In trying to determine the logical implications contained in the concept of an object *identical to itself* and endowed with a proper essence, we have found that this object must be *Absolute, invariable* and *simple*. Have we exhausted the specifications of this concept? Most Metaphysicians have ranked the *infinite* among the distinctive characters of the Absolute. Now, in fact, the concepts of the infinite and the Absolute are *incompatible* and mutually *exclusive* (1). The notion of the infinite consists in the idea that a given quantity can be increased and that this increase can be continued without end; it is inapplicable to the concept of the Absolute which is that of a simple and invariable being and not of a numerical size. Let us remark, moreover, that no given greatness can, in truth, be described as infinite, since the proper of the infinite is precisely never to be realized: a given infinite is an infinite not susceptible to increase; a *finite* infinite is a logical contradiction. Infinity is a pure conception of the mind that has no equivalent in reality.

But, if we must exclude from the Absolute the notion of the infinite, there is another concept which forms an integral part of it, and which completes its determination: it is that of *perfection* (2). The perfection of a thing consists in having all that belongs to its own nature; now, it is evident that a being who is simple and identical with itself cannot contain anything that does not necessarily belong to its essence, since it is what it must be and can only be what it is. The perfection of a thing is, thus, only an expression of its absolute nature. But, to conceive of the Absolute as perfect, is it not to conceive it as God? The idea of God is the idea of the supreme Reality in which is expressed the ideal of the

(1) *Ges. W. I*, p. 279-281; *New Sketches*, p. 2 and 80. Herbart (*Einleitung in die Philosophie*, § 121, pp. 184): "the infinite is a predicate for conceptions of the mind, whose construction is never completed."

(2) See *Ges. W. I*, p. 277 et seq.; *New Sketches*, p. 72.

highest perfection, that is, the synthesis of the two concepts of the absolute and the perfect. Now, the Absolute constitutes the normal nature of things. God is nothing other than this very nature. (1)

We do not have, in fact, the idea of a single, absolute and perfect Being, in the sense of positive religions, but the general concept, *a priori*, of an absolute and perfect nature of things, which is the norm of all reality and all thought (2). Since our knowledge, as we have established, cannot extend beyond the data of experience, we never grasp the real only in relations, as a phenomenon; we do not know what it is in itself, in its own essence or absolute nature.

But, we have from this essence an *a priori* concept which determines, by specifying it, its absolute manner of being. Its content remains inaccessible to us; but we are allowed, by developing the logical implications of our concept, to define the formal conditions to which the real in itself is necessarily subject, under risk of contradiction. Certainly, by conceiving in thought an absolute nature of things, eternally identical to itself, simple, invariable, and perfect, we abandon the domain of experience to elevate ourselves to the sphere of the pure intelligible; nevertheless, we remain faithful to the Law of our thought, because the concept of such a nature is given to us *a priori* as the only way of being which truly expresses the essence of things, as an absolute norm which conditions both our thought and the course of phenomenal becoming. But, how could we have the idea of an absolute Being? This being would escape, by definition, any relation, even of a purely intelligible order; it would have no connection, not only with the world of experience, but with our thought. It would be the One and we could never, I do not say know it, but even conceive it: how would we know it is?

Let us, therefore, only say that, if the real is in itself something absolute, there cannot be two kinds of realities (3), of which

(1) *Ges. W. II*, p. 90-93; 261 et seq.; *Sketches* p. 88; *New Sketches*, p. 116-118, 139.

(2) *New Sketches*, p. 79 and 83.

(3) *Ges. W. I*, p. 179 and 237.

the one is the real, the phenomenon of which is given to us in experience, and the other the reality which subsists forever without any possible experience. But, if the real is one and its only phenomenon is given to us in experience, we must conclude that what remains outside of experience is the essence of the same real and not another real; that is to say, there are two ways of being for the real, one in itself, in the absolute, the other as a phenomenon, in experience. We know nothing of God except that it represents for us that way of being of the real which resides outside of experience, in the Absolute; and we must define it, not as a thing or as a subject, but as a Law which determines the proper or normal essence of things (1).

If the idea of God thus expresses only one way of being, which is the Absolute or the *Substance* and if, on the other hand, this way of being represents the normal nature of things, it is then evident that there is only one God, one Absolute, one Substance; for there is really only one way of being that is normal, namely that which is contained in the concept of the Absolute or of God (2). Is not this concept a specification of the identity Principle? God is one, because It is identical in all things; and It is identical in all things, because It is everywhere identical to Itself. The unity of God, then, is not the unity of a thing or an object, but of the ideal *Norm* which serves as a norm and a Law for all reality as for all thought; that is to say, there is no reality which can, in its own essence, escape the requirements of this norm, since things possess essence only insofar as they satisfy it. It follows that the unity of the Absolute is not incompatible

(1) *Ges. W. II*, p. 40.

(2) *Ges. W. I*, p. 231 et seq.; *II*, p. 263 and 278; *New Sketches*, p. 88, 107, 121, 142.

with a plurality of real things and that one can without contradiction speak of a normal and absolute nature of things. If, indeed, the Absolute constituted a particular object, an individual being, it would not be necessary to say only that it is unique of its kind, in the sense that no other thing could be absolute outside of it. It would not be simply a way of being of the real, but itself a real object and, as such, would contain in its own being all the essence of the unconditioned; and it would be necessary to exclude *a priori* any hypothesis of a participation of things in the nature of the Absolute. What possesses in itself the unity of an object obviously implies no relation, no diversity in its essence. What would this One be composed of? Qualities? But, a quality is not a thing; it cannot form the essence of a real object; a union of different qualities is, moreover, only possible in becoming, by succession. Shall we say that the Absolute is composed of things in itself? But, each of these things is itself an absolute, so that their plurality can never constitute a single object. (1) But, if it is true that the Absolute is a *nature* and not a thing, it must be given in all things that follow its Law, that obey its norm, for it will be in each of them what represents its own being, its true nature, its *in itself*. It is, in fact, in the normal nature of things to be Absolute, simple, invariable, and perfect; (2) and of what things would we speak of if a plurality of things were really incompatible with the unity of the Absolute?

Let us conclude, then, that the concept of the Absolute expresses a way of being and precisely the normal way of being of the things of this world, "their own essence of which the reality given in experience is the phenomenon." (3) If, by their empirical nature, things form a multiplicity of individuals subject to the physical Laws of duration and change, by their superior or perfect nature they rise above phenomena and becoming to unite in God in the harmony of the unique Substance (4).

(1) *Ges. W. I*, p. 141-145; 243.

(2) *Ges. W. II*, p. 310-312; *New Sketches*, p. 88 and 107.

(3) *New Sketches*, p. 144; cf. *Ges. W. II*, p. 97-98, 265-266.

(4) *Ges. W. II*, p. 91 and 104; *Empirie und Philosophie*, p. 8.

This is not to say that the unity of things in God must be conceived as forming in the Absolute a union of the diverse; for we have shown that in the proper, unconditioned, being of the real, a union of the diverse is not possible, so that every object must be defined in itself as a simple being, undifferentiated, identical to itself; and, on the other hand, being is not pure quality, but absolute position. The unity of things in God does not, therefore, represent a union of different qualities; it does not imply any qualitative diversity; it supposes only a homogeneous and simple system of absolute positions. Now, if the Principle of contradiction opposes the immediate and unconditioned union of different qualities in the same object, it does not exclude *a priori* the possibility of a plurality of absolute things, since things are absolute only to the extent that they do not contain in their essence any qualitative diversity. (1) But, we know that things participate in the nature of the Absolute only by that side of their essence which constitutes their own or normal being; but, what is normal is identical in all things, since the norm is everywhere identical to itself; it is, therefore, only by what there is in them of non-individual or identical that things are connected with the Absolute, so that in this regard they cease to constitute a plurality proper to form, in God, a homogeneous unity. Science offers us precisely the symbol of such a unity: that which bodies form in space according to the hypothesis of Atomism. (2)

Far from the plurality of things being contradictory to their unity in the Absolute, it seems on the contrary that it imposes it by virtue of a logical necessity. As long as there is multiplicity, there is relation; because the idea of a multiplicity makes sense only if the

(1) *Ges. W. I*, p. 139 and 219; *Erörterung*, p. 13 and 44. That diversity cannot, in itself and as such, be one and the same, signifies, according to the third formula that Spir gives of the Principle of contradiction, that "an unconditional and immediate union of different qualities of any species is not possible in a general way." (*Ges. W. I*, p 134.) But the simple being is not pure quality, but absolute position. It follows, as Spir expressly admits in *Erörterung* (p.13), that the Principle of identity authorizes the hypothesis of a plurality of real things, provided that these things are true units. that is to say, do not contain any diversity in their essence.

(2) *Ges. W. I*, p. 83 et sqq.

elements that compose it are taken together; and they cannot be understood in relations that are foreign to their essence, since these relations must not be simply a consequence of their multiplicity but, on the contrary, condition and account for it. A plurality of real things is, therefore, only possible if primordial and immutable relations unite them to one another in a superior and immediate synthesis; and consequently they must belong to a larger reality which coordinates them, that they form part of a system which envelops them in the unity of its Law. (1) This condition can only be fulfilled in the Absolute. The concept of the Absolute excludes everything that implies the conditioned, a relationship of dependence; and there is a relation of dependence between two objects, when, primitively strangers to each other, they enter into a same synthesis, for this union represents for each of them a condition which does not belong to its own being. The Absolute, therefore, leaves between things nothing but relations which belong to their own essence, and, consequently, introduce into them no foreign or abnormal element. But, things precisely possess a true essence only insofar as they participate in the nature of the Absolute; this participation, therefore, cannot constitute an element which is foreign to their own being, that is to say, it cannot be derived from outside, must not have been produced: it must be immediate and primitive, immanent in reality as it is in itself. It is, therefore, only in the Absolute that the conditions on which the possibility of a plurality of things endowed with a proper essence reside (2). Let's not say

(1) This point was very well highlighted by Bradley (*Appearance and Reality*, pp. 141 et seq.). The real is one in the sense that it possesses a positive nature, excluding all discordance; Differences can only be given in it if it embraces them in a harmonious system, and consequently a plurality of real things is possible only to the extent that relations unite them in such a way as to form a synthetic whole. But, "coexistence and absolute independence are incompatible". It follows that the real is "qualified" by its relations, that is to say that these are based on a way of being "internal" of reality and belong to its own essence. But, if it is so, there will be nothing independent in reality but that system which envelops all things in the unity of its Law; so that this system is properly the Absolute.

(2) *Ges. W. I*, p. 139-143.

that in this way relativity will be introduced into the heart of the Absolute and put it in contradiction with itself; for if it is true that relations must be established between things so as to order them in one and the same system, these relations cannot endanger the integrity of the Absolute, since they are given only with regard to the elements of which they establish unity and do not apply to the Absolute itself which expresses the Law of the system and remains above things as the supreme norm of all true reality (1).

If the Absolute thus founds the unity of the Real (2), it is not itself this unity (3), since this is only possible through relations which, to be primordial and immutable, cannot none-the-less, as relations, be excluded from the Absolute, as it is in itself. By the determination of the normal nature of things, therefore, we have in no way succeeded in defining the essence of the Absolute. There is no doubt that the Ideal, of which this nature is the

(1) Spir does not admit that internal relations can be established between the real things within the Absolute, for this reason that it is contradictory to the concept of an unconditioned thing to contain in its unity relations, *i.e.*, a diversity (*Ges. W. I*, 243). But, Spir himself has established that the concepts of relative and conditioned are not equivalent, so that two objects in essential and necessary relation do not constitute two different things, but one and the same being undifferentiated (*Ges. W. I*, 139.)

(2) Spir does not content himself with posing in his abstraction the Pure Being of Parmenides; on the Eleatism of Spir. cf. also Lessing (*A. Spirs Erkenntnisstheorie*, 110: "it is the same problem that occupied the Eleates five centuries before Christ") and Zacharoff (*Spirs theoretische Philosophie dargestellt und erlautert*, pp. 59 and 64: "in his Didactic poem, Parmenides sketched out the same image of the real world as Spir. ")

(3) Spir sometimes defines the Absolute as "the superior nature and unity of things" (*Ges. II*, 91, 283): but, it must be understood in the sense that the Absolute is the foundation on which the unity of things rests, that is to say that things have unity only in it and through it (see *Ges. W. II*, p. 104: besides their superior, not empirical nature, *men are one in God.*")

expression, is not a mere fantasy of human reason, since it conditions the plurality of real things and dominates from its demands the very course of phenomenal becoming; but we cannot know in what form

this Ideal is currently realized, since we never grasp of it more than the general character, as it is given to us in the *a priori* concept of a normal nature of things: it is for us just a way of being whose content we do not know. We cannot suppose that the Absolute is constituted in its own being by the plurality of things of which it expresses the normal nature; (1) for if it is true that they participate, to a certain extent, in its essence, it does not follow that they are part of it: these are the very things that are understood in the world of experience and yet they do not possess of themselves a proper essence. It is only their participation in the nature of the Absolute that gives them a true existence: how could we admit that this Absolute owes them its own nature or existence, that it has no reality but in them and by them? We know, moreover, that the Absolute must not be considered as a compound and that it does not encompass any relation or diversity in its concept. Things themselves rise to the Absolute only when they have abstracted their individual diversity to form in God a unity in which the real does not present any qualitative difference and remains in each of its elements always identical to itself.

The multiplicity of the diverse ultimately remains a fact of experience which, by the very fact that it belongs to experience, cannot be attributed to the Real as it subsists in itself, apart from experience, in the Absolute. (2) Here is the dilemma: either the multiplicity of particular objects which we observe in experience constitutes an abnormal and purely empirical element, and it is evident that it must be foreign to the Absolute; or else it is part of what is normal and in this case one has to

(1) *Ges. W. I*, p. 231-243.

(2) *Ges. W. I*, p. 233-234; *Erörterung*, p. 44 ff.

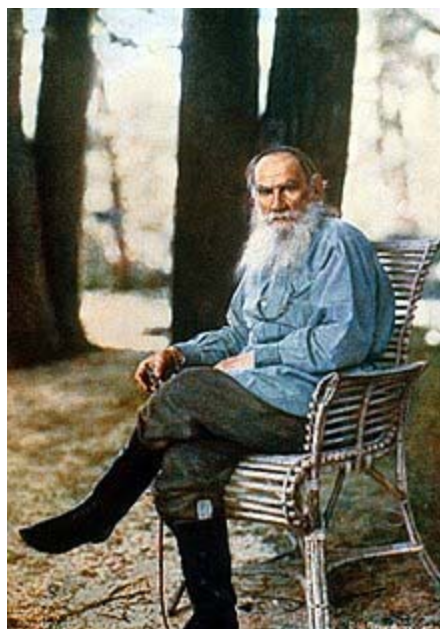
be able to conclude from the plurality as it is given in the experience to the plurality as it must subsist in the Absolute and explain the latter by the former. But, experience cannot show us things as they are in themselves, in their very essence, since the determination of this essence can only be carried out by means of an *a priori* concept of pure reason and goes beyond empirical data: by definition, the real is in itself what it is not in the experience. It clearly follows that we must

not conclude from what is given in experience to what must remain in the Absolute but, on the contrary, exclude from the Absolute all that is part of experience and consequently to deny the Absolute any multiplicity or any relativity. But, apart from the data of experience and of our *a priori* concept of a normal nature of things, we possess no element which can serve us as a basis for a determination of the Absolute; and this is why this Absolute remains inaccessible to us in its very essence: our knowledge is limited to the specifications and purely logical consequences of the Principle which constitutes the *Norm* of our thought.



[AFTERWORD

Here, dear reader, ends my translation of Afrikan Alexandrovich Spir's *Thought and Reality* into English. The preceding Appendix reflects the intended presentation of the concepts of the *conditioned* of experience and the Absolute *unconditioned* of God's Reality. It defines God as *the True nature of things and beings*, including Man, and invites us to take part in a *regeneration* of the Universe. This was indeed Mr. Spir's *vision* as detailed in his *Vorschlag an die Freunde einer vernünftigen Lebensführung*, Leipzig, J.G. Findel, 1869 (French translation by Hélène Claparède-Spir: *Projet d'un coenobium laïque*, Ed. of Coenobium, Lugano, 1907.) This was also count Lev Nikolaievich Tolstoy's profound conviction. Having written his battlefield observations in *Sevastopol Sketches*, he, like Afrikan Spir renounced the „misspent years“ and, like him turned to philosophical pursuits: “The sole meaning of life is to serve humanity by contributing to the establishment of the kingdom of God, which can only be done by the recognition and profession of the truth by every man.” he wrote later in *The Kingdom of Heaven is within You* (1894).



Count Lev Nikolaievich Tolstoy (1828-1910)

Photo taken 23 May 1908 at Yasnaya Polyana, 2 years before his death.

In 1896, count Lev Nikolaievich Tolstoy read *Thought and Reality* and was supremely impressed, as he explained to Hélène Claparède-

Spir in a letter : « To read *Thought and Reality* was to me a great joy. I do not know of any profounder Philosopher and at the same time as precise, I mean scientific, accepting only that which is necessary and evident for all people. I am convinced that his doctrine will be understood and appreciated as it deserves and the destiny of his work will be similar to that of Schopenhauer, who became known and famous only after his death. » (Published in: Hélène Claparède-Spir, *Evocation: Tolstoi, Nietzsche, Rilke, Spir*, Genève, Georg et Cie, 1944; The original letter can be consulted at the Bibliothèque de Genève, cf. Fabrizio Frigerio, *op. cit.*, p.17, n. 2. Manuscript letter (in French) to Hélène Claparède-Spir in Stuttgart, 1/13 May 1896.)

In his Journal (May, 2nd, 1896) He wrote: « Still another important event, the work of African Spier [Spir]. I just read through what I wrote in the beginning of this notebook. At bottom, it is nothing else than a short summary of all of Spier's [Spir's] philosophy which I not only had not read at that time, but about which I had not the slightest idea. This work clarified my ideas on the meaning of life remarkably, and in some ways strengthened them. The essence of his doctrine is that things do not exist, but only our impressions which appear to us in our conception as objects.

Conception (*Vorstellung*) has the quality of believing in the existence of objects. This comes from the fact that the quality of thinking consists in attributing an objectivity to impressions, a substance, and a projecting of them into space. »

The next day (May, 3rd, 1896 he adds: "I am reading Spier [Spir] all the time, and the reading provokes a mass of thoughts." *The Journal of Leo Tolstoy*, Vol. 1 1895-1899, p. 31, 32. Translated from the Russian by Rose Strunsky. Alfred A. Knopf, New York, 1917.]

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